



DISCOVERY & EXPLORATION

Exploring North America

1800–1900



MAURICE ISSERMAN

JOHN S. BOWMAN AND MAURICE ISSERMAN, GENERAL EDITORS



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Facts On File, Inc.
132 West 31st Street
New York NY 10001

Library of Congress Cataloging-in-Publication Data

Isserman, Maurice.

Exploring North America, 1800–1900 / Maurice Isserman.

p. cm.—(Discovery and exploration)

Includes bibliographical references (p.) and index.

ISBN 0-8160-5263-8

1. North America—Discovery and exploration—Juvenile literature. 2. Explorers—North America—History—19th century—Juvenile literature. 3. North America—History—19th century—Juvenile literature. I. Title. II. Series.

E45.I85 2005

917.04'4—dc22

2004011587

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<http://www.factsonfile.com>

Text design by Erika K. Arroyo

Cover design by Pehrsson Design

Maps by Sholto Ainslie, Jeremy Eagle, Patricia Meschino, and Dale Williams

Printed in the United States of America

VB FOF 10 9 8 7 6 5 4 3 2 1

This book is printed on acid-free paper.

*For Tom Cohn, who long ago joined me
in the exploration of Skunk Hollow*



NOTE ON PHOTOS



Many of the illustrations and photographs used in this book are old, historical images. The quality of the prints is not always up to current standards, as in some cases the originals are from old or poor-quality negatives or are damaged. The content of the illustrations, however, made their inclusion important despite problems in reproduction.

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INTRODUCTION



J. Hector St. John Crèvecoeur, a military mapmaker who served with the French army during the French and Indian War (1754–63), settled after the war in Orange County, New York. His home, west of the Hudson River, was close to the frontier of Anglo-American settlement in 18th-century North America. In 1782 he published a collection of his essays, *Letters from an American Farmer*, a book that found many readers in the newly independent United States as well as in Europe.

In his *Letters* Crèvecoeur sought to define for readers what was distinctive about “the American.” The typical American, he argued, was no longer to be understood as “European nor a descendant of a European,” but was instead a “new man,” someone “who leaving behind all his ancient prejudices and manners, receives new ones from the new mode of life he has embraced. . . .”

Among the things that distinguished the American “mode of life” from its European counterpart was the availability of free land lying to the west in territory that was not only unsettled, but as yet unexplored. Crèvecoeur predicted that it would not be for “many ages” that the “unknown bounds of North America” would be “entirely peopled . . . for no Euro-

pean foot has as yet traveled half the extent of this mighty continent!”

Crèvecoeur found the fact that so much of western North America remained wild and unknown to be very reassuring, for it was the surest guarantee that future generations of Americans would continue to enjoy the fruits

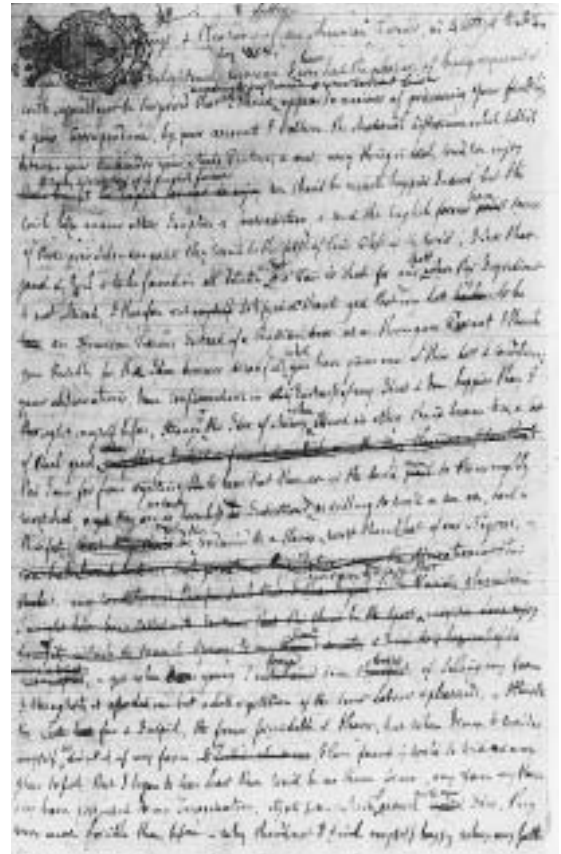


J. Hector St. John Crèvecoeur, pen name of Michel-Guillaume St-Jean de Crèvecoeur, examined America and the developing American national identity in his *Letters from an American Farmer*. (Library of Congress)

of equality and opportunity. “We are a people of cultivators,” he wrote, “scattered over an immense territory, united by the silken hands of mild government, all respecting the laws, without dreading their power, because they are equitable.” In the vast expanse of lands to the west, as yet unsettled, lay the guarantee of America’s preservation from aristocratic distinction and tyranny. “We are the most perfect society now existing in the world,” Crèvecoeur concluded happily.

Whether or not he was right about America’s unique national virtues, Crèvecoeur proved mistaken about the “many ages” it would take for the “European foot” to explore the North American continent. In 1893, a century, a decade, and a year after the publication of Crèvecoeur’s *Letters*, American historian Frederick Jackson Turner delivered an influential address to his fellow historians, gathered in Chicago at a meeting of the American Historical Association. Turner entitled his talk “The Significance of the Frontier in American History,” noting that as of 1890 the U.S. Superintendent of the Census had found that the steady westward shift of population had for the first time eliminated the “frontier line” in the United States. Turner, like Crèvecoeur before him, found in the existence of the frontier the source of the American virtues of prosperity, individualism, and democracy—except he was writing to announce (and mourn) its passing. “What the Mediterranean Sea was to the Greeks,” Turner declared, “breaking the bond of custom, offering new experiences, calling out new institutions and activities, that, and more, the ever retreating frontier has been to the United States. . . . And now, four centuries from the discovery of America, at the end of a hundred years of life under the Constitution, the frontier has gone, and with its going has closed the first period of American history.”

This book traces the history of the exploration of western North America in the period that falls roughly between the publication of Crèvecoeur’s *Letters* and the announcement of Jackson’s “frontier thesis,” and the impact of that exploration on the national histories of both the United States and Canada in the 19th century. Individual chapters provide a brief look at earlier periods of exploration, as needed for background. This book shares the perspective of Turner’s “Significance of the



J. Hector St. John Crèvecoeur’s *Letters from an American Farmer* was published in 1782. Here is a page from the manuscript, which included many essays not published in the 1782 edition. (Library of Congress)

Frontier,” that western exploration and settlement was critical in the evolution of American nationhood, institutions, and character. But the book is also influenced by more recent historical work on the exploration and settlement of the American West, including works by William H. Goetzmann, James Ronda, Patricia Limerick, and many others, works that complicate Turner’s frontier thesis in useful ways. Historians now understand, for example, that the federal government, as well as individual explorers, contributed enormously to the exploration of the West. Historians have come to pay much more attention to the role of Native Americans in the process of exploration, as contributors as well as opponents to the exploration of their ancestral lands by white explorers. They also understand that as Anglo-American settlers pressed westward, the resulting societies in the new western territories remained places where many peoples and cultures could be found interacting, sometimes in conflict, sometimes cooperating, their numbers including Native Americans, Hispanics, and African Americans. The new historians have paid more attention to the environmental impact of the settlement of the West. The historic reputation of some early heroes of western exploration, like John C. Frémont, has suffered as a result of the newer interpretations; other explorers, such as John Wesley Powell, have seen their reputations enhanced.

The history of the exploration of western North America in the 19th century is an immensely complicated story, involving thousands of individuals, over a territory of millions of square miles. It is a story that does not always lend itself to easy generalizations. But John Logan Allen, professor of geography at the University of Connecticut and a noted historian of western exploration, offers a useful chronological perspective in his introduction

to a 1997 collection of essays, *A Continent Comprehended* (this book is the concluding volume in a three-volume series on North American exploration edited by Allen). Allen argues that there were three stages in 19th-century exploration. At the start of the century, “much of the exploratory activity of British, Russian, Spanish, and American explorers was still linked with the game of empire.” A few decades into the new century, “commercial interests—primarily of the fur trade—had become the primary exploratory incentive.” By midcentury that again changed as “scientific inquiry” became the primary motivator for explorers.

Logan’s description of three separate eras in 19th-century exploration should not, however, obscure the fact that there were often significant areas of overlap. The explorers employed by the North West Company and the Hudson’s Bay Company in Canada in the 18th and early 19th century were agents of both empire and of commerce. In the United States, too, the lines often blurred. John Colter, a military veteran of the empire-building Lewis and Clark Expedition, returned west as one of the pioneering mountain men before Lewis and Clark had even made it all the way back east to St. Louis in 1806; later in the century, mountain man Kit Carson guided U.S. army explorer John C. Frémont on his early expeditions in the Rockies and into California. And scientific explorer John Wesley Powell followed in the footsteps of both military explorers and fur traders in his exploration of the Colorado River.

The history of the exploration of western North America is thus a complicated story—but it is also an exciting and inspiring narrative, full of moments of great courage, insight, and individual and collective achievement, as will become evident in the chapters that follow.

DOWN THE “GREAT UNKNOWN”

Grand Canyon, Summer 1869



On the morning of August 13, 1869, John Wesley Powell and the men of the Colorado River Exploring Expedition sat by the water's edge, contemplating the rapids they were about to attempt in their battered wooden boats. On either side of the river the walls of the Grand Canyon rose to a dizzying three-quarters of a mile above their heads. At the top of the canyon, spreading out for miles as far as the eyes could see, lay arid deserts. They had come across few signs of human habitation in weeks, and those few only long-abandoned ruins. Powell and his men felt as if they were imprisoned below the surface of the Earth. Now, they wondered if they would live to see another day.

In his 35 years, Powell had known more than his share of danger and adversity, and he tried not to show his misgivings that day. The men called him “Major” in honor of his service in the Union army in the Civil War, when he had lost an arm in combat. But on this August morning, John Wesley Powell felt he was facing the supreme challenge of his life.

THE GREAT UNKNOWN

“We are now ready to start on our way down the Great Unknown,” John Wesley Powell recalled (though writing some years later, he used the present tense to better convey to his readers the tensions and uncertainties he experienced on his journey down the Colorado). “Our boats, tied to a common stake, are chafing each other, as they are tossed by the fretful river. They ride high and buoyant, for their loads are lighter than we could desire. We have but a month's rations remaining.”

Powell and his men had set off on their expedition down the Colorado less than three months before. They had carried with them a 10-month supply of food, but the river had since claimed most of it. They managed to save a little of their flour, which they dried and sifted through mosquito netting to take out the lumps; they had a little bacon, of questionable quality, and a few pounds of dried apples. Their only luxury was a large sack of coffee that had thus far escaped the river's damp fury.

Powell tried to look on the bright side. “The lightening of the boats has this advantage; they will ride the waves better, and we shall have but little to carry when we make a portage.”

Powell and his men expected hardship and could put up with scant rations. It was the uncertainty that was wearing at them. “We have an unknown distance yet to run; an unknown river yet to explore,” Powell would later write. “What falls there are, we know not; what rocks beset the channel, we know not; what walls rise over the river, we know not. Ah, well! We may conjecture many things. The men talk as cheerfully as ever; jests are bandied about freely this morning, but to me the cheer is somber and the jests are ghastly.” That said, there was no turning back. All they could do was push the boats out once again into the river’s current, and see where it would carry them.

Powell’s men may have called him “Major,” but he and they were not soldiers. Unlike the expedition up the Missouri and Columbia Rivers led by U.S. Army captains Meriwether Lewis and William Clark from 1804 to 1806, Powell’s Colorado River Exploring Expedition was a civilian operation. Lewis and Clark were under orders from President Thomas Jefferson to explore the vast new territory of the Louisiana Purchase while seeking a water route across the continent to the Pacific. Powell followed no directives but his own, and his men took orders from him only as long as they chose to do so. Nor were Powell and his men pursuing private gain, like the fur-hunting mountain men who followed Lewis and Clark up the Missouri and across the Continental Divide. Nobody’s fortune would be made by going down the Colorado in 1869. The Colorado River Exploring Expedition was a scientific enterprise, funded by universities and museums, with a little help from the federal government in the form of military rations,



and the loan of some scientific instruments from the Smithsonian Institution in Washington, D.C.

Powell’s men doubtless possessed a mixture of motives as they set off down the river that summer, including a love of adventure, and perhaps a hope for winning some measure of fame and glory. But the main goal of the expedition was the acquisition of scientific knowledge for its own sake; if successful, Pow-



This photograph shows Powell and his team preparing to begin the U.S. Geological Survey in 1871, two years after his expedition along the Colorado River. (*National Archives, Still Picture Records NWDNS-57-PS-444*)

ell and the men under his command would fill in a blank space on the map of the American West—the course of the Colorado River as it wended its way through the desert country of northern Arizona.

THE COLORADO RIVER

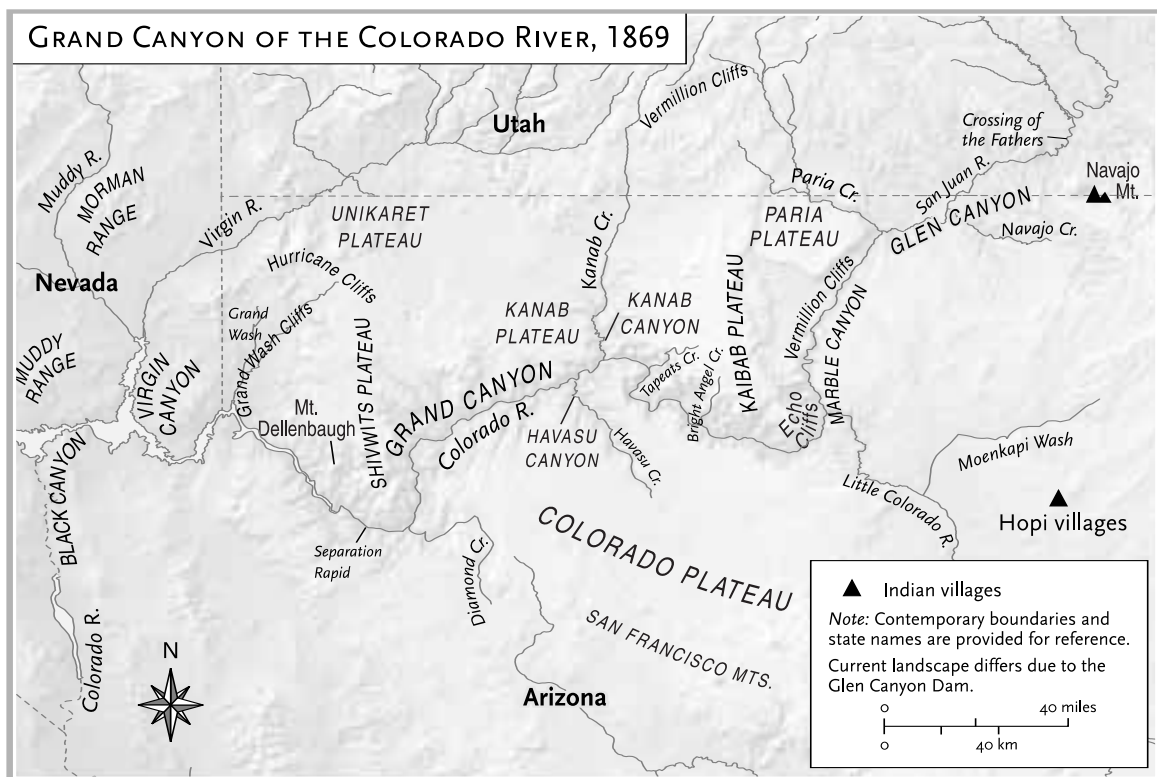
The Colorado River is one of five great rivers having its headwaters in the southern Rocky

Mountains. The Rockies are an interlocking chain of ranges that extend from northern Mexico to northern Canada, with peaks ranging from 7,000 feet to more than 14,000 feet. The southern range of the American Rockies include the Sangre de Cristo Mountains in New Mexico, the San Juan Mountains that run from New Mexico into southern Colorado, the Sawatch Mountains of western central Colorado, and the Front Range of Colorado, beginning

with Pike's Peak and running north some 300 miles. The Continental Divide runs among the peaks of the southern Rockies. Three rivers—the Arkansas, the South Platte, and the North Platte—drain to the east of the southern Rockies; one, the Rio Grande, drains to the south; and the Colorado drains to the west.

The Colorado's headwaters are found in Grand Lake on the Rockies' western slope, at an altitude of 8,369 feet, in what is today part of Rocky Mountain National Park in northern Colorado. From that starting point, the Colorado flows in a southwesterly direction through Utah, into northern Arizona and the southeastern corner of Nevada, before swinging nearly due south and flowing into Mexico, where it finally empties its waters into the Gulf of California.

At 1,440 miles, the Colorado is the fifth longest river in the United States, and drains nearly 250,000 square miles of land, with its tributary rivers and streams making up the principal river system of the American Southwest. Among those tributaries is the Green River, flowing south from the Wind River Range in Wyoming, the river that Powell and his men took to reach the Colorado. The Colorado and its tributaries cut deeply through the successive strata of limestone, sandstone, shale, granite, and schist that make up the Colorado Plateau. Twenty million years of ceaseless erosion wound up revealing a slice of geological history stretching from the Carboniferous back through the pre-Cambrian Ages, and in the process produced some of the most spectacular canyons and gorges to be





Published in *Frank Leslie's Illustrated Newspaper* in 1869, this engraving demonstrates the Grand Canyon's vastness. (Library of Congress, Prints and Photographs Division [LC-USZ62-106108])

found in North America. The most spectacular of all is the Grand Canyon, which stretches for 277 miles from the mouth of the Paria River in the east to Grand Wash Stream in the west; in some places its bottom lies a mile below the Earth's surface.

John Wesley Powell discovered neither the Colorado River nor the Grand Canyon. The banks of the Colorado had been home to Native American tribes for centuries, long before the first Europeans stumbled upon it. In 1539 Spanish explorer Francisco de Ulloa discovered its mouth on the Gulf of California. Another Spaniard, Hernando de Alarcón sailed a short way up the river in 1540, calling it *El Río de Buena Guía*, or the River of Good Guidance. It would later be renamed Colorado (or colored) for the reddish silt carried by its waters. The Spanish soon discovered that the Colorado was a river of surprises, including the greatest canyon any European had ever seen. García López de Cárdenas, an officer attached to the well-known Spanish explorer Francisco Vázquez de Coronado's expedition, came upon the Grand Canyon in 1540. He was traveling overland and was absolutely astonished to find this deeply cut fissure in the desert. Cárdenas and his men, however, never set foot on the floor of the canyon they discovered, for the prospect of descending its steep walls to the river proved far too daunting.

Having marveled at the Grand Canyon, the Spanish found little reason to return. They had not come to North America as tourists. The deserts surrounding the Grand Canyon were not welcoming lands, and for the next three centuries Spanish explorers, missionaries, and soldiers rarely ventured into the region. When the United States acquired the territory through which the Colorado flowed in the Treaty of Guadalupe Hidalgo, which ended the Mexican War in 1848, the nearest sizable white settlements were hundreds of

miles away. In the years before the Mexican War, some enterprising mountain men, including Jedediah Smith and Kit Carson, explored the upper Colorado, but stopped short of the Grand Canyon. In 1858 Lieutenant Joseph Christmas Ives of the U.S. Army Corps of Topographical Engineers led an expedition up the lower Colorado from the Gulf of Mexico, first by steamer, then by foot. He reached the western edge of the Grand Canyon (which he called the "Big Canyon"), and walked a short distance along the shores of the Colorado River within it. That made him the first person of European descent to ever actually set foot in the Grand Canyon. Ives predicted at the time that "the Colorado, along the greater part of its lonely and majestic way, shall be forever unvisited and undisturbed." No one of European descent had ever attempted to travel the length of the Colorado River as it runs its westward course through the Grand Canyon—no one until John Wesley Powell and the men of the Colorado River Exploring Expedition.

THE EXPEDITION BEGINS

John Wesley Powell and his team began their journey on May 11, 1869, at Green River Station in the Wyoming Territory, a stop of the newly opened Union Pacific railroad line. They spent two weeks in Green River packing their supplies. There were 10 of them altogether in the expeditionary party. In addition to Powell was his brother, Walter, another veteran of the Union Army, and two other brothers, Oramel and Seneca Howland, who had been with the Powells on an earlier Colorado Rockies expedition. Hunters Bill Dunn and Jack Sumner, and cook Billy Rhodes Hawkins were also veterans of the previous expedition. There were also some new recruits, including an 18-year-old ox driver named Andrew "Dare

Devil Dick” Hall, an expert boatsman and army veteran named George Young Bradley, and an adventure-seeking Englishman named Frank Goodman.

To carry them downriver, they had four boats that Powell had ordered built in Chicago and shipped by rail to Green River. Three were sturdy oaken craft, 21 feet long, and steered by a wooden sweep from the stern. These heavy boats were designed to stand up to the beating they would take from the river rapids, and they had watertight compartments built within at either end to hold the expedition supplies. The men named the three boats

Maid of the Canyon, *Kitty Clyde’s Sister*, and, mischievously, the *No-Name*. The fourth boat was smaller and lighter, just 16 feet long, and built of pine. Lighter and easier to steer, this was the craft Powell would use as pilot boat, to guide the heavier-laden craft that followed. Powell named this flagship of his little fleet the *Emma Dean*, after his wife.

The rations they packed in Green River included bacon, beans, flour, sugar, coffee, clothing, guns and ammunition, blankets, and tents. They had carpentry tools, should the boats need repair, and also to build cabins, for Powell initially planned to winter somewhere



The Green River, shown in an 1870s photograph, twists and turns along its journey to the Colorado River. (Library of Congress, Prints and Photographs Division [LC-USZ62-84443])

along the river's banks, and complete the journey in spring 1870. There were also scientific instruments, including two sextants, four chronometers, plus barometers, thermometers, and compasses. Powell planned to map the river's every twist and turn.

On May 24, 1869, they pushed their boats into the Green River. "The good people of Green River City turn out to see us start," Powell would later write. The crowd, some doubting they would ever see the explorers alive again, cheered the men in the boats. "We raise our little flag, push the boats from shore, and the swift current carries us down."

The first day's cruise provided a foretaste of troubles to come. They had not made it a mile from their launching point when the boats ran ashore on a sandbar, and had to be partially unloaded before they would float free. An oar broke against a rock, and two other oars were lost in the current, though eventually recovered. But the pleasure of being on their way at last and the views in the distance compensated the men for their exertions.

THE VIEW FROM THE CLIFFTOP

For two days the Green River carried them due south through open land. On May 26, having traveled 62 miles from the starting point, they entered higher ground where the Green cut a passage through the Uinta Mountains. They halted for a few days at the entrance of the canyon, which they called Flaming Gorge for the red sandstone walls that rose 1,200 feet to either side of the river. On May 29 Powell climbed to the clifftop (he proved a remarkably adept rock climber, given that he had only one arm). From there he looked back over the route they had traveled down to the canyon's mouth. He could see a dwelling in the distance, which he knew to be the home of

a white rancher. It made him think of the history of the region over the past few decades:

For many years, this valley has been the home of a number of mountaineers, who were originally hunters and trappers, living with the Indians. Most of them have one or more Indian wives. They no longer roam with the nomadic tribes in pursuit of buckskin or beaver, but have accumulated herds of cattle and horses, and consider themselves quite well-to-do.

Pushing on, they passed in rapid succession through Horseshoe Canyon (which they named for its curving shape), and Kingfisher Canyon (named for the birds who fished its streams). At another turn in the river, they came upon a dome-shaped rocky point whose surface has been pitted by erosion. Swallows had nested in the pits, and as they flew around the cliffs, they looked to Powell like "swarm of bees"—which led to the name Beehive Point. On May 31 the expedition reached the mouth of Red Canyon. There they found evidence that they were not the first white men to sail this far down the Green River, for on the canyon wall was painted the words "Ashley, 1825." Although Powell had never heard of "Ashley," the inscription was left no doubt by William H. Ashley, a pioneering fur trapper who had come in search of beaver (which by 1869 had nearly been trapped into extinction).

There were good days and bad days on the river. When the river was calm or the rapids relatively gentle, they made quick progress. But all too often they encountered dangerous stretches that forced them to halt along the shore. Then they would unload the supplies from each boat, and "line" the empty boats through the danger spots. That meant attaching ropes to the bow and stern of each craft, feeding out the stern line from upriver to ease

the boat down through the most dangerous passages, and pulling the boat to shore again with the bow line, which had been secured further downriver. Then they would have to carry the supplies along the shore to the boats and reload them, until the next dangerous rapids or falls came along, and the whole process repeated.

On June 4 Powell's little fleet reached Brown's Hole, a valley named for Baptiste Brown, a Hudson's Bay fur trader who had settled in the region in 1827. There they halted for three days to explore. The countryside was full of vibrant signs of plant and animal life. The surrounding pine forests and grassy meadows were well watered by the melting snow of the nearby mountains. They woke to birdsong in the morning, and noted the presence of warblers and woodpeckers, flickers, meadowlarks, and wild geese. Mule deer, elk, grizzly bears, wolverines, wild cats, and mountain lions could be seen or tracked in the surrounding hills. On June 5 Powell and one of his men climbed the cliffs above the river and from their height could "look up the valley of the Vermilion," through which, as he remembered, his predecessor explorer John C. Frémont "found his path on his way to the great parks of Colorado."

NEAR DISASTER

The river now swung southwest. On June 8 Powell and his team entered Lodore Canyon (the northern boundary of present-day Dinosaur National Monument). In Lodore Canyon they had an accident that nearly doomed the expedition. The *No-Name*, manned by Frank Goodman and the Howland brothers, was sucked into the rapids on June 9 as they tried to maneuver it along the shoreline. The boat hit a rock and split in two. Goodman and the Howlands were rescued,

soaked and shaken, but unharmed. But the boat's contents had spilled into the water, including much of the expedition's supply of flour, beans, and bacon. Even worse, all of the expedition's barometers had been unwisely packed aboard the *No-Name*. Bacon and beans could be replaced by game they shot along the river. The barometers, however, were irreplaceable: Without them, the expedition could not measure altitude, and thus could not track the descent of the river from the hills toward sea level, or the heights of the cliffs that loomed above the river. Fortunately, the next morning they found the wrecked aft section of the boat a short way downriver, washed up on a little island, and recovered from it unscathed the package of barometers. They also found a small barrel of whiskey that they consumed on the spot in celebration.

The next few days on the river brought more near disasters. One section of rapids was so bad they were moved to name it "Hell's Half-Mile." The *Maid of the Canyon* barely escaped the fate of the *No-Name*. Nor were they safe on shore. On June 16 a carelessly tended cooking fire ignited the dead willow wood around their camp, and the men, "clothing burned and hair singed," as Powell later described them, had to leap into the water to escape, abandoning cookware and other provisions on shore to the flames.

They were still traveling down the Green, reaching the mouth of the Yampa River on June 17. Eleven days later they reached the mouth of the Uinta River and halted. They needed the rest. By walking 40 miles up the Uinta River, they had their last chance of getting new supplies, at an Indian reservation for the Ute tribe. Powell made the hike inland with a few of his men. At the reservation, he recalled, it was "rather pleasant to see a house once more, and some evidences of civilization, even if it is on an Indian reservation, several



The Green River crosses the area of present-day Dinosaur National Monument, shown in a contemporary photograph. (*National Park Service*)

day's ride from the nearest home of the white man." Powell was impressed by the Indians' ability to farm in such an arid climate, and by the fields of wheat, melons, and other vegetables they grew. With rainfall scarce, the Indians diverted mountain streams to irrigate their crops: "Most of the crops are looking well," Powell wrote, "and it is rather surprising with what pride they show us that they are able to cultivate crops like white men."

Powell spent Independence Day relaxing at the reservation, then headed back the next day to the expedition's campsite on the Green River. With him went two Ute Indians, leading horses laden with 300 pounds of flour, a welcome addition to the expedition's dwindling supply of rations. But he returned one man

short. Frank Goodman decided he had had enough adventure after surviving the wreck of the *No-Name*, and headed back east on his own.

On July 6 they pushed off again, now numbering nine men in three boats. The next day Powell decided to climb a cliff behind their evening camp to get a better look at the landscape. He and Bradley climbed high on the cliff, but Powell misjudged his route, and found himself on a foothold from which he could neither advance nor retreat, with a 100-foot drop beneath him. Clinging to a rocky knob with his one hand, he shouted to Bradley, above him on the cliff, for help. Bradley found a secure spot to sit on a ledge, took off his long underwear, and lowered the

garment to Powell. Powell grabbed hold of this unlikely lifeline, and Bradley pulled him to safety.

On July 11, as they passed through landscape so bleak they named it Desolation Canyon, another near disaster befell them. Powell was thrown from the *Emma Dean* into the rapids. He was pulled from the water before drowning, but two guns and one of the precious barometers were lost.

ON TO THE COLORADO

Below Desolation Canyon, Powell's expedition ran through Coal (now Gray) Canyon, named

for the gray sandstone of its walls. They spotted signs of Indian inhabitants or visitors to the canyon: Rafts floating against one bank, for use in a river crossing, arrowheads at another spot. On July 14 they came to a new canyon, which they named Labyrinth Canyon for its many twists and turns. The waters were now smoother, and the traveling grew easier. As Powell recalled their passage on July 15:

There is an exquisite charm in our ride today down this beautiful canyon. It gradually grows deeper with every mile of travel; the walls are symmetrically curved, and grandly arched; of a beautiful color and



John Wesley Powell and the members of his expedition followed the Colorado River through a series of canyons before reaching what would become known as the Grand Canyon. Visible in this contemporary photograph is the exposed rock of the canyon's walls. (*National Park Service*)

reflected in the quiet waters. . . . We are all in fine spirits. . . . Now and then we whistle, or shout, or discharge a pistol, to listen to the reverberations among the cliffs.

The waters grew so gentle they named the next canyon Stillwater Canyon. Around them lay desert country: “The landscape everywhere, away from the river, is rock,” Powell wrote of this stretch of their journey, “cliffs of rock; tables of rock; plateaus of rock; terraces of rock; crags of rock . . . a whole land of naked rock . . .”

Late on the afternoon of July 17, they came to the junction of the Green and the Colorado Rivers, having traveled more than 500 miles since setting out of the Green. They rested for a few days, repacked their supplies, and fixed some leaks in their boats. Undaunted by the narrowness of the escape the last time he climbed the cliffs along the river, Powell made his way up the canyon walls once again. He was rewarded with a glorious view:

Below is the canon [canyon], through which the Colorado runs. We can trace its course for miles, and at points catch glimpses of the river. From the northwest comes the Green, in a narrow winding gorge. From the northeast comes the Grand [the name then in use for the upper stretch of the Colorado as it headed towards its headwaters in the Rockies], through a canon that seems bottomless from where we stand. . . . Wherever we look there is but a wilderness of rocks; deep gorges where the rivers are lost below cliffs and towers and pinnacles; and ten thousand strangely carved forms in every direction; and beyond them, mountains blending with the clouds.

On July 21 they set off downriver, through the turbulent waters of Cataract Canyon,

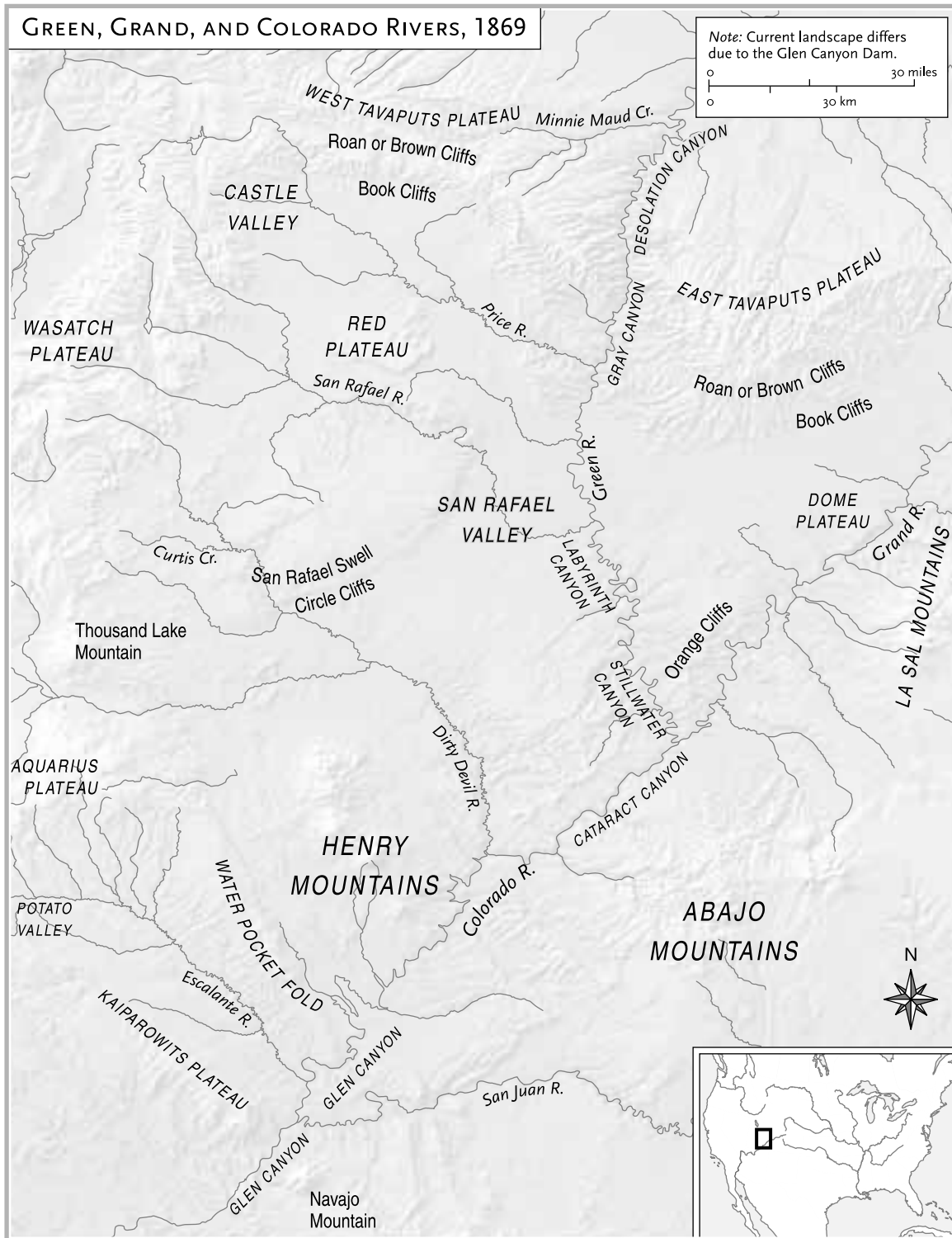
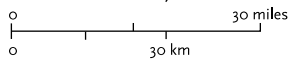
where their progress slowed to as little as a mile a day. The boats were leaking again, and Powell and his brother hiked up the canyon walls to gather resin from pitch pines to use for caulking. Daytime temperatures could reach 115 degrees, but at night they shivered in water-soaked clothing and blankets. Firewood was scarce, so sometimes they could not huddle by the warmth of a fire, or cook their food. The men were hungry and tired, their resolve weakening.

GLEN CANYON

On July 29 Powell and his crew entered a new canyon, which they named Glen Canyon after the stands of oak found along its shoreline. At the canyon’s mouth they came across the ruins of an ancient Indian dwelling, which Powell believed once stood three stories high. The ground around was an archaeologist’s delight, strewn with flints, arrowheads, and pottery fragments. It did not take a professional archaeologist to realize that at one time, long before their arrival, the empty countryside along the Colorado River had been well populated. Later they came across more ruins that included a stairway cut into the rock face of the canyon wall, leading up to what Powell decided must have been an ancient watchtower. Powell speculated that “nomadic tribes were sweeping down” on the people who left these ruins and artifacts, “and they resorted to these cliffs and canyons for safety.” These were probably sites associated with Anasazi or Ancestral Puebloan Indians, who, as 20th-century archaeologists concluded, lived in the region from 700 A.D. to about 1150 A.D. They abandoned the settled towns, or pueblos, they built into the canyon around then for reasons that are not known. The Hopi Indians still to be found in the region are believed to be descendants of the Anasazi.

GREEN, GRAND, AND COLORADO RIVERS, 1869

Note: Current landscape differs due to the Glen Canyon Dam.



August 3 brought the expedition to another historic site, a place known as the Crossing of the Fathers, the ford on the Colorado where Spanish priests Father Silvestre Vélez de Escalante and Father Anastasio Dominguez crossed the river in 1776. August 4 brought Powell's men out of Glen Canyon, and on the following day they reached Marble Canyon, named for the rock formation that stands out along the canyon walls.

DISCONTENT GROWS

On August 10 Powell's expedition reached the mouth of the river the Spanish called the Colorado Chiquito (the Little Colorado). Here they halted again to make scientific measurements, finding further evidence of ancient Indian civilization, including ruins, pottery fragments, and rock drawings known as petroglyphs. Powell had abandoned his original plan of extending the expedition through the fall and winter months and into the next spring. There was not enough food or other supplies to make that plan work. But Powell was still taking too much time with scientific diversions, as far as the men were concerned, forever stopping to climb the walls of the steep canyons, take barometric readings, and gather rock specimens. "The men are uneasy and discontented and eager to move on." Bradley wrote in his journal on August 11. "If the Major does not do something soon I fear the consequences, but he is contented and seems to think that biscuit made of sour and musty flour and a few dried apples is enough to sustain a laboring man. If he can only study geology he will be happy without food or shelter . . ." Powell did not realize it, but the next two weeks would bring the greatest challenges.

Feeling a mixture of eagerness, anxiety, and "some misgivings," Powell and his men

pushed off onto the river on the morning of August 13, and within a half hour had run six miles down the Colorado. The canyon sides towered above them, "irregular slopes below, and above these, steep slopes to the foot of marble cliffs." Their rapid progress came to an abrupt halt when they came to a falls, with rapids and boulders strewn in the river below, so they had to portage their boats around on the narrow shores of the canyon. Then there were more rapids to run. They camped that night in a cave by the water's edge.

August 14 brought more of the same. "After breakfast we enter on the waves," Powell wrote. They could not relax for a moment: "The canyon is narrower than we have ever before seen it; the water is swifter; there are but few broken rocks in the channel; but the walls are set, on either side, with pinnacles and crags; and sharp angular buttresses, bristling with wind and wave-polished spires, extend far out into the river." And then, at about 11 A.M., they came to the greatest obstacle they had yet encountered. "[W]e hear a great roar ahead, and approach it very cautiously," Powell wrote.

The sound grows louder and louder as we run, and at last we find ourselves above a long, broken fall, with ledges and pinnacles of rock obstructing the river. There is a descent of, perhaps, seventy-five or eighty feet in a third of a mile, and the rushing waters break into great waves on the rocks, and lash themselves into a mad, white foam. We can land just above them, but there is no foothold on either side by which we can make a portage . . . we must run the rapid, or abandon the river. There is no hesitation. We step into our boats, push off and away we go, first on smooth but swift water, then we strike a glassy wave, and ride to its



Not knowing what the landscape would look like ahead, Powell and his fellow expedition members became aware of the magnitude of the Grand Canyon as they traveled down the Colorado River. (*National Park Service*)

top, down again into the trough, up again on a higher wave, and down and up on waves higher and still higher, until we strike one just as it curls back, and a breaker rolls over our little boat.

The canyon walls above them now reached a vertical mile. “Down in these grand, gloomy depths we glide, ever listening, for the mad waters keep up their roar; ever watching, ever peering ahead, for the narrow canyon is winding, and the river is closed in so that we can see but a few hundred yards, and what there may be below, we know not . . .”

The river, they discovered, did not make a straight run in the southwesterly direction they expected it to go, but curved northward time and again. Some days they made good progress, traveling 20 miles, for example, on August 21. But there were many difficult and time-consuming portages. Thoughts of food obsessed the men; they were down to their last bag of flour. On August 26 they found an Indian garden (but no Indians), and stole 10 squashes to add to their meager rations. They traversed 35 miles that day, and Powell expressed the hope that “[a] few days like this and we are out of prison.”

On August 27 they reached a new set of rapids, seemingly the worst yet. George Bradley wrote in his journal: “The billows are huge. . . . The spectacle is appalling to us.” There was no way to portage around them; if the expedition was to continue downriver, it would have to be by riding in their leaky boats right through the rapids. “There is discontent in camp tonight . . .,” Bradley recorded in his journal.

A PARTING OF THE WAYS

The Howland brothers and Bill Dunn decided that they had had enough of the dark canyon, of the dangerous river, and of Powell’s leadership. They had been talking among themselves, and they announced that they would prefer to take their chances, climbing out of the canyon and striking off overland toward a Mormon settlement called St. George. That was a 70-mile hike, a long way to travel across desert. Powell tried to persuade them to abandon the plan. By river, he reckoned, it was only 45 miles as the crow flies until they would be out of the Grand Canyon, and once they reached the canyon’s end they would be in easy striking distance of white settlements. But the Howlands and Bill Dunn were unshakable: They wanted no more of Powell’s expedition or the Colorado River. Powell was no less determined to continue. “[F]or years I have been contemplating this trip,” he wrote. “To leave the exploration unfinished, to say that there is a part of the canyon which I cannot explore, having already almost accomplished it, is more than I am willing to acknowledge.”

The Howland brothers and Dunn took their leave on the morning of August 28. They were never seen again. It would be many months before Powell would learn of their unhappy fate; hiking cross-country, they were

reported to have encountered a band of Paiute Indians who, wrongly suspecting them of having raped and murdered an Indian woman, killed all three of them. (An alternate theory blames the murder on local Mormons, who may have considered the three men to be spies).

Powell and his five remaining companions got ready to resume their journey in two boats, abandoning the *Emma Dean* by the riverside. To lighten their load, they also left behind their barometers and the mineral and fossil specimens Powell had collected along the way. Powell took a place on *The Maid of the Canyon* with two others, and pushed off:

We glide rapidly along the foot of the wall, just grazing one great rock, then pull out a little into the chute of the second fall and plunge over it. The open compartment [of the boat] is filled when we strike the first wave below, but we cut through it, and then the men pull with all their power toward the left wall and swing clear of the dangerous rock below all right. We are scarcely a minute in running [the rapids], and find that, although it looked bad from above, we have passed many places that were worse.

The second boat made it through as well. Had the Howlands and Dunn only remained, they would have survived to share in the moment of triumph. On the next day, August 29, the Colorado River Exploring Expedition sailed out of the Grand Canyon and entered the rolling countryside of the region known as the Grand Wash (much of the region is now submerged beneath the waters of Lake Mead). After 99 days on the river, during which they traveled 1,000 miles of mostly uncharted territory, they were back on the map. They had conquered the Colorado. It was a great individual achievement for Powell, as leader of the

expedition. But, as Powell and his men were repeatedly reminded en route, others had gone before them. They crossed the paths of many earlier explorers, including priests such as Fathers Escalante and Dominguez, moun-

tain men such as William H. Ashley, and military men such as John C. Frémont. The exploration of the "Great Unknown" of western North America was, above all else, a collective effort.

2

THOMAS JEFFERSON'S OTHER EXPLORERS



On May 14, 1804, a party of explorers commanded by U.S. Army Captain Meriwether Lewis began a journey up the Missouri River. Lewis's co-commander was William Clark, and their journey became known to history as the Lewis and Clark Expedition. It could with equal justice have been called the Jefferson Expedition, because the plan for the expedition was the initiative of President Thomas Jefferson. He had for many years cherished a desire to discover a water route across North America, linking the Atlantic and Pacific Oceans. "The object of your mission," Jefferson wrote to Lewis in June 1803, "is to explore the Missouri river, & such principal stream of it, as by it's [sic] course and communication with the waters of the Pacific ocean, whether the Columbia, Oregon, Colorado or any other river may offer the most direct & practicable water communication across this continent for the purposes of commerce."

Lewis and Clark would fail in the mission assigned them by Jefferson to find a "practicable" water route across the continent. They

failed because no such route existed. The headwaters of the Missouri, high in the Rocky Mountains, did not lie anywhere near those of the Columbia, or any other river that emptied into the Pacific. There was no "height of land" that served as the source for all the West's major rivers. As for the Rockies, they proved a far more formidable barrier than Jefferson had imagined; they were not a simple chain of ridges like the Appalachian and Blue Ridge Mountains of the East, but a region of mountains that rose in places to more than twice the height of the highest Appalachians. Once across the Rockies, travelers heading west still faced many hundreds of miles of difficult travel, down rapid-flowing rivers, or across barren deserts, and over still more mountains, before coming at last to the Pacific Ocean.

Jefferson's mistaken notions about western geography nonetheless proved very fruitful for the United States. Had he realized the true difficulties of western exploration and travel, he might never have sent Lewis and Clark or any other explorers westward. Though they failed

to find the fanciful Northwest Passage to the coveted riches of Asia, Lewis and Clark achieved much of great importance to the future of their country. They mapped the Missouri, the Columbia, and the Yellowstone Rivers; they found passages through the Rocky Mountains; they established contact with Indian tribes like the Shoshone and Nez Perce who had never before seen white people; and they laid the basis for future U.S. territorial claims in the Pacific Northwest. As a result of their epic journey of 1804–06, they secured for themselves a place in U.S. history as the greatest of North American explorers.

Lewis and Clark's fame, although certainly justified, has obscured the efforts of the other explorers who headed west in the years of Thomas Jefferson's presidency. President Jefferson was personally fond of Meriwether

Lewis and held out great hopes for the success of his expedition. Nonetheless, he intended the Lewis and Clark Expedition to be just a part of a coordinated effort to learn more about the vast unexplored regions west of the Mississippi. Thus, when he reported to Congress in February 1806 on Lewis and Clark's progress up the Missouri (based on information the two expedition leaders had sent back to Washington from their first winter encampment in North Dakota), he did so in a document entitled "*Message from the President of the United States Communicating Discoveries Made in Exploring the Missouri, Red River, and Washita, by Captains Lewis and Clarke, Doctor Sibley, and Mr. Dunbar . . .*" Meriwether Lewis, William Clark, Doctor John Sibley, William Dunbar, and others were all part of Jefferson's ambitious program of exploration, engaged in



Published in Patrick Gass's account of the Lewis and Clark Expedition, this etching shows the two men holding a council with some American Indians. (*Library of Congress, Prints and Photographs Division [LC-USZ62-17372]*)



Thomas Jefferson's Study of North American Geography

Jefferson is best remembered today for such political achievements as authoring the Declaration of Independence. But, he observed that it was the “tranquil pursuits of science” that were his “supreme delight.” Whenever political duties permitted, he devoted himself to exploring a far-ranging set of interests, from scientific agriculture to natural history.

The subject that perhaps held the greatest fascination for him was North American geography. Starting as a young man, Jefferson purchased and assembled a great personal library at his home, Monticello in Virginia, on the subject (a collection that he later donated to the U.S. government, and that became the core of the Library of Congress).

The books and maps in his library were frequently inaccurate in the way they depicted the unexplored regions of the western half of the North American continent. Cartographers frequently gave way to the temptation to fill in the blank spots on their maps with details they knew only from vague reports, speculation, or their own invention. From his studies, Jefferson drew the erroneous conclusion that the headwaters of the Missouri and the Columbia Rivers existed in close proximity to one another. And not only the Missouri and the Columbia—all the west’s rivers, he believed, flowed from a common “height of land,” some to the east, some to the west. He also had come to believe that the Rocky Mountains consisted of a single low and narrow chain of ridges, cut through by easily accessible passes. Had Jefferson’s geographical misconceptions proved to be other than wishful thinking, it would have been possible to travel by water

what might collectively be labeled the Jefferson Expeditions. With the possible exception of John F. Kennedy and the space race of the 1960s, no president of the United States has ever been as committed to using the power of the federal government for the purpose of exploration as Thomas Jefferson.

THE LOUISIANA PURCHASE

Jefferson favored exploration of the West for reasons both practical and visionary. He was convinced that the success of the experiment with democratic self-government that had been launched in 1776 depended upon west-

ward expansion. The American West, he hoped, would prove a land of fertile soil and abundant rainfall, just waiting to be settled and developed by farmers. As long as successive generations of Americans could take advantage of that bountiful western garden, they need never suffer the fate of the unhappy common people of Europe. Although he was himself a wealthy man, a plantation owner and slaveowner, Thomas Jefferson saw himself as a champion of the common people. In the United States, unlike Europe, land was abundant and available to all who would till it, however humble their origins. In the United States, unlike Europe, no one need live in crowded, disease-ridden cities if they preferred a

all the way from the Alleghenies to the Rockies (via the Ohio, Mississippi, and Missouri Rivers) and from there, after a short portage across the Rockies, to resume the journey by water the rest of the way to the Pacific Ocean.



Thomas Jefferson designed and continually remodeled Monticello, his home near Charlottesville, Virginia. (*Library of Congress, Prints and Photographs Division [LC-USZ62-107586]*)

healthy, virtuous life close to the soil. Independent, property-owning farmers, Jefferson believed, were the ideal citizens of a free and self-governing country like the United States.

When Jefferson asked James Monroe to go to Paris in 1803 to take part in the negotiations that led a few months later to the purchase of the Louisiana Territory from the French government, he made clear to Monroe what he thought the stakes were: "On the event of this mission depends the future destinies of this republic." On July 3, 1803, President Jefferson received official confirmation that the government of France was prepared to sell the Louisiana Territory to the United States. For the bargain price of \$15 million, American

negotiators in Paris added 828,000 square miles to the territory of the United States, doubling its size.

Although the Louisiana Territory was thought to include all the lands west of the Mississippi that drained into that great river basin, no one in 1803, neither seller nor buyer, was quite sure what that meant. When Robert Livingston, one of the American negotiators in Paris, asked the French foreign minister Charles-Maurice de Talleyrand-Périgord to describe the extent of the lands being conveyed by sale to the United States, Talleyrand replied, "I can give you no direction. You have made a noble bargain for yourselves and I suppose you will make the most of it."



Thomas Jefferson supported exploration of western North America as the third president of the United States. (*National Archives, Still Picture Records NWDNS-208-PU-104HH[4]*)

That was Jefferson's intent. Lewis and Clark would explore the lands along the Missouri River, which would take them to the northern edge of the Louisiana Territory. But Jefferson also wanted to know about the Louisiana Territory's southern boundaries. Even before the Louisiana Purchase, Americans had begun to show interest in the Spanish province of Texas. In 1791 Philip Nolan, an Irish immigrant to the United States and a friend of Jefferson, had received permission from Spanish authorities to make a trip to Texas to buy horses from the Comanche Indians to bring back and sell in Louisiana. He spent several years in the

province, traveling as far south as San Antonio in 1794. But Nolan seemed to have more than horse-trading in mind. Spanish authorities grew suspicious of his exploring and mapmaking, as well as his association with prominent Americans. (Jefferson and Nolan corresponded about the wild horse herds of Texas.) In 1800 Nolan led a small expedition of well-armed Americans to found a fort in Texas along the Brazos River. Spanish authorities dispatched troops from Nacogdoches to arrest him, and in a fight on March 21, 1801, Nolan was killed. His followers were marched south and sentenced to hard labor in a Spanish prison. Nolan was the first of what would be called the "filibusters," Americans acting on their own (or with covert support from the U.S. government) to encroach on and undermine Spanish rule in Texas.

Jefferson took the oath of office just two weeks before Nolan's death at Spanish hands. It would be some months before he learned of Nolan's fate. He did not want conflict with the Spanish, but he did want to know more about Texas and the lands beyond. So he turned to other explorers for help, starting with William Dunbar.

THE DUNBAR-HUNTER EXPEDITION

William Dunbar was born around 1750 in Morayshire, Scotland, to wealthy parents. He was well educated, having attended King's College in Aberdeen, Scotland, from which he graduated in 1767, trained as a chemist and botanist. He immigrated to Britain's North American colonies in 1771, settling first in Philadelphia, then moving to West Florida and finally to the Mississippi River, establishing a plantation in 1792 near present-day Natchez, Mississippi.

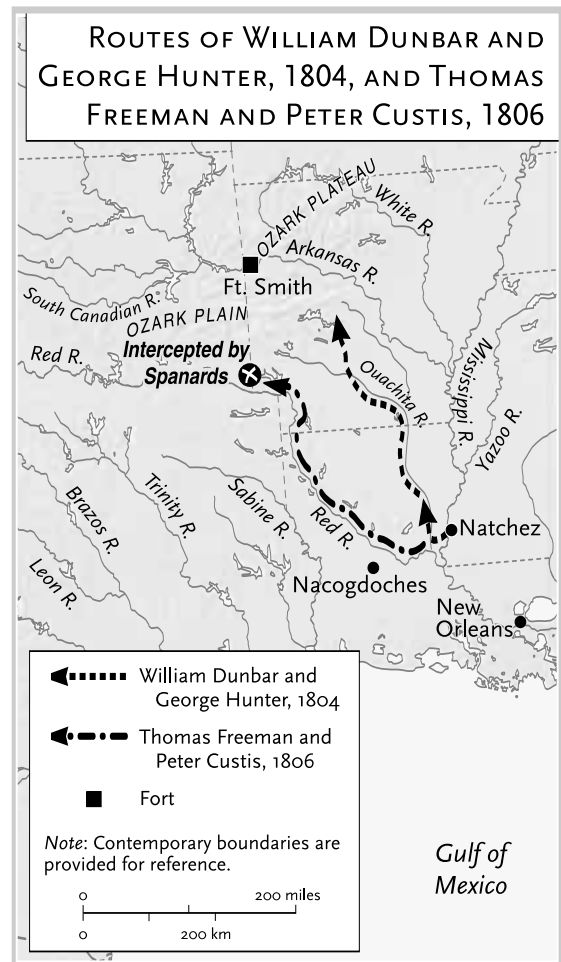
Dunbar was an inventor as well as a planter. He set up a business to manufacture

barrel staves, and developed the use of square-shaped cotton bales that became the standard method of packing the South's principal export crop for transportation. He also kept up his scientific interests, and pioneered the study of meteorology in the Mississippi Valley. He was, in short, a man of thought and action, a combination that greatly appealed to Thomas Jefferson. When he lived in West Florida, Dunbar had served as surveyor general and had become acquainted with surveyor and astronomer Andrew Ellicott (who taught Meriwether Lewis the art of celestial navigation at Jefferson's request); Ellicott introduced Dunbar to Jefferson. The latter two men maintained a friendly correspondence over the years on matters of mutual interest, including such topics as Indian sign language and fossil remains found west of the Mississippi.

In March 1804 Jefferson wrote to Dunbar to ask the planter to take on a mission for his adopted country, to lead an expedition to explore the southern tributaries of the Mississippi, and thus aid in the preparation of "a map of Louisiana which in its contours and main waters will be perfectly accurate." Jefferson was particularly interested in the course of the Red River, which emptied its waters into the Mississippi after flowing east through Texas. In another instance of Jefferson's wishful geography, he hoped that the Red might prove the southern counterpart of the Missouri River to the north, and flow all the way from the Rockies. (The Red, which takes its name from the color of the clay silt it picks up as it winds through Texas, is indeed a formidable river, 1,222 miles long. It does not, however, flow from headwaters in the southern Rockies, but rather from hills in the Texas Panhandle to their east.) Jefferson also wanted Dunbar to act as a diplomat, announcing to the Indian tribes along the Red and Arkansas Rivers that, thanks to the

Louisiana Purchase, they had a new "great white father" who lived in a place called Washington, D.C.

Dunbar agreed, but Jefferson developed second thoughts after hearing from Osage Indians visiting Washington that the projected mission up the Red River might inflame both Indian and Spanish resentment. Jefferson decided to postpone the exploration of the Red for the moment. Instead he asked Dunbar to lead a party up the Ouchita River, a tributary of the Red River, as a kind of test run for a



more ambitious journey later. George Hunter, a Philadelphia chemist, joined Dunbar's expedition at Jefferson's request.

On October 14, 1804, the party, known as the Dunbar-Hunter Expedition, set off from St. Catherine's Landing, south of Natchez. In addition to its two civilian leaders, the expedition included a U.S. Army sergeant and 12 soldiers, plus Hunter's son George, a slave belonging to Dunbar, and a guide. They made their way up the Mississippi to the mouth of the Red River, then upstream to the Black River, and from there to the mouth of the Ouchita River. They followed the Ouchita as far as it could be navigated, taking careful astronomical readings to map their way, as the river wound its way through northern Louisiana and on into Arkansas.

The high point of the expedition came when they reached a region of thermal hot springs (present-day Hot Springs, Arkansas) in early December. Though the springs had long been known to the Indians, and known to Europeans since their discovery by Spanish explorer Hernando de Soto in 1541, the Dunbar-Hunter party were the first Americans to enjoy the pleasure of bathing in them. Dunbar and his men proved in no hurry to leave. The explorers spent a month at the hot springs before setting out on their return journey in early January.

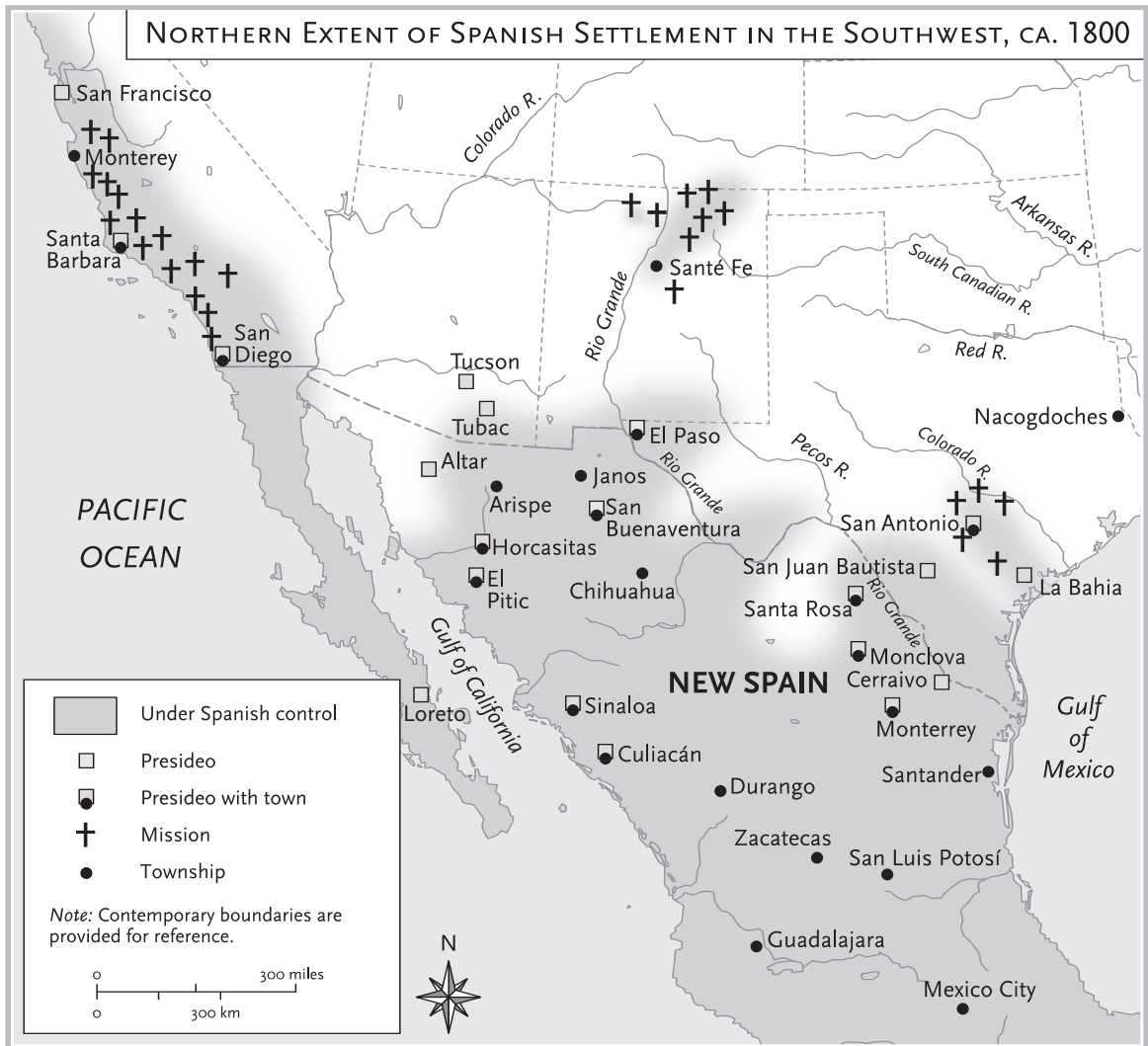
Dunbar wrote to Jefferson soon after his return to Natchez, sending along his observations about the hot springs—"a great curiosity" as he termed them. In spring 1805 Jefferson had yet to receive any reports from the Lewis and Clark Expedition, so he was quite pleased that the other party he had sent out to explore the new Louisiana territory had enjoyed at least a limited success in exploring one of the minor southern tributaries of the Mississippi. "Those who come after us will extend the ramifications as they

become acquainted with them," Jefferson wrote in a letter to Dunbar on May 25, 1805, praising his expedition, "and fill up the canvas we begin."

THE FREEMAN-CUSTIS EXPEDITION

It was not long before another party set out to help "fill up the canvas" of the Mississippi's southern tributaries. A year after the Dunbar-Hunter Expedition's return, Jefferson decided it was time to return to his initial plan of mapping the Red River to its source. Dunbar was uninterested, so this expedition would be led by Colonel Thomas Freeman, a civil engineer and surveyor. Freeman was accompanied by Peter Custis, a medical student at the University of Pennsylvania, so their party became known as the Freeman-Custis Expedition. They were joined by army officers Captain Richard Spark and Lieutenant Enoch Humphreys, and a contingent of soldiers—40 men in all. On April 19, 1806, they set off up the Mississippi River from Fort Adams, south of Natchez. They reached the American outpost of Campti on the Red River by June 7. There they received a warning sent by courier from federal agent John Sibley, a physician living in Natchitoches. Sibley, another of Jefferson's scientific correspondents, had learned that the Spanish authorities in the Southwest were on the lookout for Freeman's party and had sent patrols to intercept them. Although concerned about the possibility of a clash with the Spanish, Sibley himself followed his courier upriver to join the party.

Freeman and his men had orders to turn back only if they encountered a superior Spanish force, so they pressed on up the Red River. They encouraged the Indians they met along the river to take down the Spanish flags



they displayed in their villages, and gave them U.S. flags to fly in their place. But the Spanish did not idly accept this challenge to their authority. On July 29 Spanish troops intercepted the Freeman party at a spot on the Red River known ever since as Spanish Bluff, about 30 miles northwest of present-day Texarkana, Texas. The Spanish commander bluntly told the Americans that they were trespassing and

had better head back to their own territory at once. Freeman was not prepared to start a war that afternoon on the banks of the Red River, particularly since he was badly outnumbered. So the expedition turned around and headed home. Jefferson's hopes for exploring and mapping the southern border of the Louisiana territory would not be realized during his presidency.



The Clash of Empires

SPAIN, THE UNITED STATES, AND THE OPENING OF THE AMERICAN SOUTHWEST

At the start of the 19th century, explorers from the United States were just beginning to find their way into the American Southwest. But this was a region that had known other explorers of European descent long before the Americans showed up. In 1540, not quite 50 years after Christopher Columbus's first voyage, the Spanish explorer Francisco Vázquez de Coronado had led an expedition of 1,000 men north from Mexico into what were later to be the states of Arizona and New Mexico (and ultimately pushed on as far as Kansas before returning to Mexico in 1542); as early as 1598, 200 Spanish families followed the Basque nobleman Juan de Oñate northward from Mexico to form San Juan de los Caballeros, the first Spanish settlement in northern New Mexico. In contrast, it would be nearly a decade before the first permanent British settlement, Jamestown, Virginia, was established on the Atlantic coast of North America; it would take the descendants of those British settlements another two centuries before they began to approach the borders of the territory the Spanish had first explored and settled in the 16th century.

The Americans would make up for lost time in the 19th century, and the Spanish were well aware of the threat. Fifteen years before the Louisiana Purchase, Spain's viceroy in Mexico, Manuel Antonio Florez, offered a grim prophecy for the future of the Spanish empire in North America. "We ought not to be surprized," he warned the Spanish government in 1788, "that the English colonies of America, now being an independent Republic, should carry out the design of finding a safe port on the Pacific and of attempting to sustain it by crossing the immense country of the continent above our possessions of Texas, New Mexico, and California."

ZEBULON MONTGOMERY PIKE

After Lewis and Clark, the best-known explorer of the Jeffersonian era was undoubtedly Zebulon Montgomery Pike. Pike was born in Lambertton, New Jersey, in 1779, the son of an American military officer. Following his father's example, Pike joined the U.S. Army at age 15, and served on the Ohio frontier in the 1790s. A skilled outdoorsman and hunter, he taught himself French and Spanish, as well as a smattering of mathematics and science.

It often took a powerful patron to help a young officer rise to prominence in the small U.S. peacetime army of the early 19th century. Meriwether Lewis had found just such a patron in Thomas Jefferson. Zebulon Montgomery Pike, for better and worse, found his own patron in General James Wilkinson, one of the strangest characters in U.S. military history.

A Revolutionary War veteran who had fought at Bunker Hill, Wilkinson was appointed commander of the U.S. Army in 1797. In 1805 Jefferson gave him a new assignment



Zebulon Montgomery Pike led two successful expeditions—one exploring the headwaters of the Mississippi River and another in search of the headwaters of the Red River. (*Library of Congress, Prints and Photographs Division [LC-USZ62-128057]*)

as governor of the upper Louisiana Territory. But Jefferson did not know that for many years Wilkinson had been secretly employed as an agent of the Spanish government. Before taking up his new post in St. Louis, Wilkinson had warned the Spanish authorities in New Orleans of the impending Lewis and Clark Expedition (the Spanish sent out military detachments to intercept and arrest the expedition led by the man they called “Captain Merry,” but they had no success). To complicate matters further, Wilkinson may have been plotting to betray his Spanish paymasters as well as his own country. He and former vice president Aaron Burr hatched a complicated plot in 1805 to split off the trans-Appalachian states and territories from the United States, and perhaps link them up with an independent Mexico as a separate country.

Had they succeeded, the subsequent history of the United States, and indeed of the world, might have been very different.

PIKE'S FIRST EXPEDITION

In summer 1805 Wilkinson ordered Pike, then stationed at Fort Kaskaskia in the Illinois Territory, to lead a scientific and diplomatic expedition up the Mississippi River. Pike was to map the upper stretches of the great river, contact and gather information on the Indian tribes who lived along its waters, and, if he could do so before winter came, find the river's headwaters.

Like Lewis and Clark, Pike kept a daily expedition journal. “Sailed from my encampment near Saint Louis,” Pike wrote after the first day's voyage of the Upper Mississippi Exploring Expedition:

at 4 Oclock P.M. on Friday the 9th Augt. 1805, with one Sergt. Two corporals and 17 privates in a Keel Boat 70 feet long; provisioned for four months; with orders to explore the source of the Mississippi making a general survey of the river and its boundaries, and its productions, both in the Animal, vegetable and mineral creation; also to include observations on the savage inhabitants of its Banks—Water very rapid—encamped on the E. side at the head of and Island[.]

At first they made rapid progress upriver, blessed with favorable winds. By September 4 the expedition reached the settlement of Prairie du Chien, founded in the 1780s as a trading center near the mouth of the Wisconsin River. Although in 1805 Prairie du Chien lay in what had become U.S. territory, most of the inhabitants of the settlement still looked to British Canada as their protector. U.S. fur traders had yet to penetrate the region, which

was economically controlled by the British-owned fur companies. Pike noted the results: “[I]t is astonishing to me, what a dread the Indians have of the Americans in this quarter. I have frequently seen them go round Islands to avoid meeting my Boat. It appears evident to me that the Traders have taken great pains to impress on the minds of the Savages, an idea of our being a very vindictive, ferocious and War like people. This impression was given no doubt with an evil intention . . .”

The expedition abandoned the keelboat at Prairie du Chien, since the Mississippi had become too shallow and rock-filled to take it any further upriver. From there they proceeded in canoes purchased or hired from the local inhabitants. By September 21 Pike noted in his journal that the river “became so very narrow . . . that I once crossed [it] in Forty Strokes of my oars . . .”

Pike attended to his diplomatic duties, passing out gifts and smoking peace pipes with the Indian tribes he encountered along the river. On September 23, at a site near present-day Minneapolis, Pike held a council with chiefs from the Dakota Sioux tribe. On behalf of the U.S. government, he purchased from them more than 150,000 acres of land on either side of river. In exchange, the Indians received \$200 worth of presents and 60 gallons of whiskey. Pike’s purchase of this land was the first treaty signed by a representative of the U.S. government with Indians living west of the Mississippi.

Despite the onset of cold weather, sickness among his party, leaky boats, dwindling supplies, and his orders from Wilkinson to return to St. Louis before winter, Pike kept heading northward up the river. He had hopes of winning fame as an explorer, and as yet had too



Pike purchased land from some Dakota Sioux during his search for the source of the Mississippi River. In this early 20th-century photograph by Edward S. Curtis, three Dakota Sioux on horseback gaze across the Great Plains. (*Library of Congress, Prints and Photographs Division [LC-USZ62-105381]*)

little to show on his first expedition. His actions over the next few months proved that he had more luck than skill as a commander of men in the wilderness.

On October 16 Pike called a temporary halt at the mouth of the Swan River, near present-day Little Falls, Minnesota, 1,500 miles upriver from St. Louis. Then, after nearly two months' delay, he pushed north again with a party of 12 soldiers, leaving the rest of his men behind in a small stockade they had constructed on the riverbank. Pike and his exploring party took one small canoe with them, and dragged wooden sleds along the river banks to carry their provisions. Progress was slow and difficult. "Never did I undergo more fatigue," Pike complained on December 23, two weeks after resuming his journey. As for his men, he described them as "poor fellows, who were killing themselves to obey my orders." They observed Christmas Day on the trail, with Pike passing out an extra whiskey ration and some tobacco to his men. By this point he was barely able to walk.

They might well have died in the frozen wilderness, leaving no trace of their passing. Fortunately, on January 2, 1806, Pike and his men encountered two traders from the North West Company, one of the two major Canadian fur companies. They led the Americans to the North West Company trading post at Cedar Lake, near present-day Aitken, Minnesota. From this point on, Pike was not so much exploring new territory as enjoying the hospitality of the well-established British traders. At Cedar Lake, Pike noted to his disapproval the British flag flying over the traders' roof (North West trader James Grant told Pike that the flag belonged to the local Indians who insisted on flying it, but Pike remain unconvinced). Grant invited Pike to accompany him further upcountry. They reached their next stop, the Lake De Sable

trading post, on January 13; the U.S. explorers were given a warm welcome, including whiskey, and such local delicacies as roasted beaver and boiled moose head.

Refreshed, they set out again upriver. On January 31 Pike came to a fork in the river, and decided that its western branch must lead to the headwaters of the Mississippi River. On the afternoon of February 1, 1805, they reached Leech Lake. "I will not attempt to describe my feeling on the accomplishment of my voyage," Pike wrote in his journal, "this being the main source of the Mississippi." But he was mistaken: The eastern fork, leading to Lake Itasca, led to the actual headwaters of the Mississippi. At Leech Lake, Pike and his men once more enjoyed the hospitality of North West Company traders, who maintained an outpost on the shores of the lake. But Pike was not so gracious a guest this time; he had his soldiers shoot down the Union Jack that flew over the trading post.

On February 18 Pike and his men headed south. When they rejoined the rest of their party at the stockade on the Swan River, they found things in a bad way. Sergeant Henry Kennerman, whom Pike had left in command, had traded off many of their supplies to the local Indians. Furious, Pike demoted him to private and denounced his treachery in the journal: "[T]hat man [Kennerman] was squandering the Flour, Pork and Liquor away during the winter. Whilst we were starving with hunger and cold."

Spring was slow in coming to the upper Mississippi. On April 7 the river was finally clear of ice, and Pike and his men resumed their journey southward. They reached St. Louis on April 30, having covered 5,000 miles in under nine months. The British flag, Pike happily reported to Wilkinson, "has given place to that of the United States wherever we past . . ."

President Jefferson had been informed by General Wilkinson of Pike's mission only after his departure up the Mississippi, but the president approved of Wilkinson's initiative. In his report to Congress in December 1806, Jefferson declared that, "Very useful additions have . . . been made to our knowledge of the Mississippi by Lieutenant Pike, who has ascended to its source . . ." That was a generous assessment, for Pike had failed to discover any significant geographical features previously unknown to mapmakers. He was also failed to secure the allegiance of the Indian tribes of the upper Mississippi (most of whom sided with the British a few years later in the War of 1812).

PIKE'S SECOND EXPEDITION

Notwithstanding his indifferent showing on the Mississippi, Pike was given a new exploring assignment a mere two months after his return to St. Louis. Wilkinson ordered him to take an expedition westward to the Rocky Mountains to find the headwaters of the Red River. The Freeman-Custis party had not yet returned from their own abortive attempt to reach those headwaters, but Pike would follow a different route on his mission. He was ordered to head out overland across the central plains to the southern Rockies, then make his way back eastward along the Red River.

"The late dangers and hardships I had undergone, together with the idea of again leaving my family in a strange country, distant from their connections, made me hesitate," Pike wrote of his reaction upon learning of his new mission, "but the ambition of a soldier, and the spirit of enterprise, which was inherent in my breast, induced me to agree to his proposition."

Pike's hesitations would have been greater had he understood Wilkinson's tangled motives for sending him westward. Once again the general was acting on his own initiative; he did not inform President Jefferson of the expedition under after Pike's departure. Wilkinson's orders to Pike specified that he should "move with great circumspection" as he neared Spanish territory in the Southwest, in order to avoid a border incident since "it is the desire of the President, to cultivate the Friendship & Harmonious Intercourse, of all the Nations of the Earth, & particularly our near neighbours the Spaniards." Provoking a border incident, however, may have been exactly what Wilkinson had in mind. Wilkinson and his co-conspirator Aaron Burr hoped that an American war with Spain for control of the Southwest would give them the opportunity to carry out their plan to set up an independent western country under their own control. Pike was to be an unwitting pawn in Wilkinson and Burr's designs.

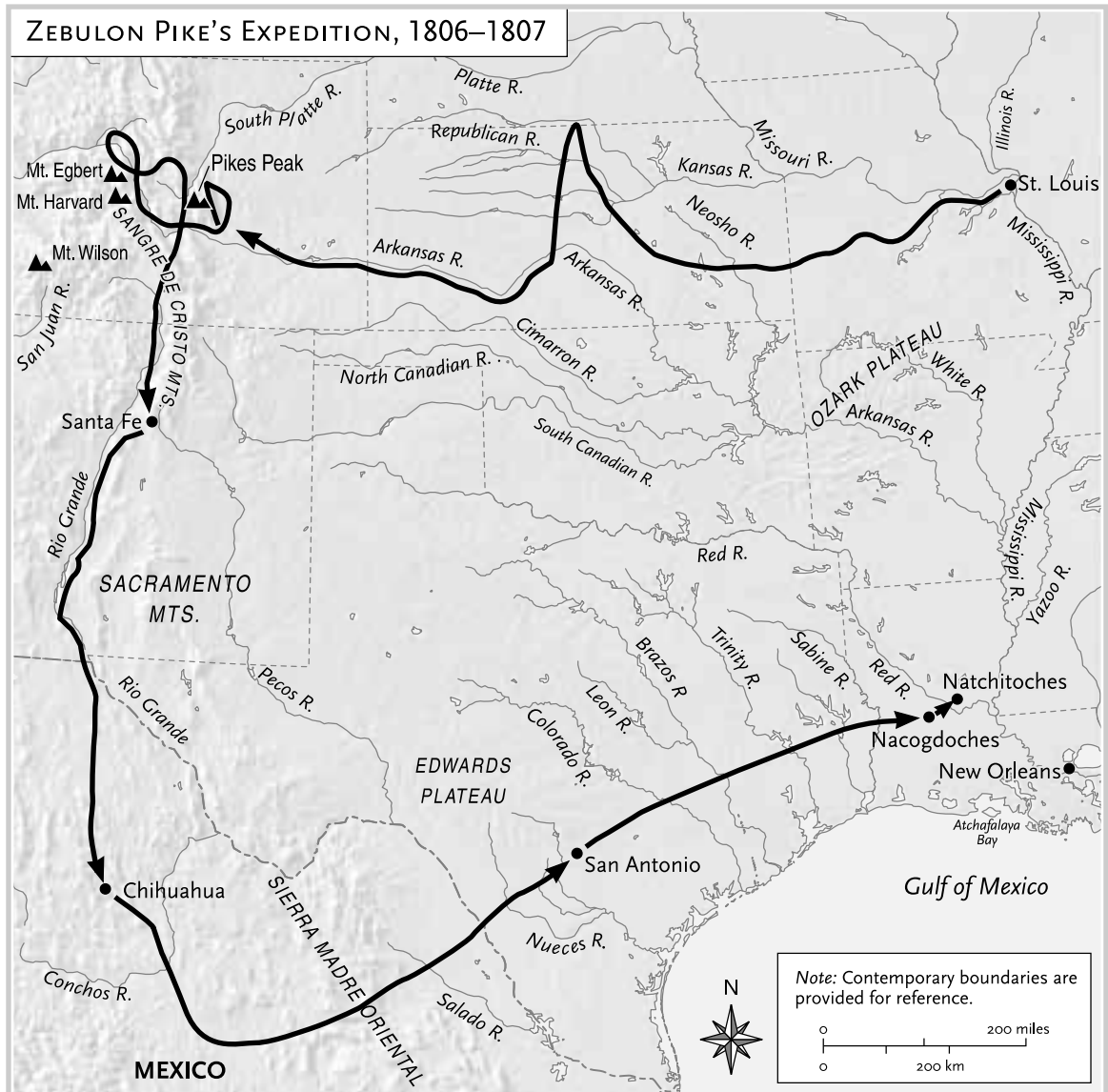
Pike's expedition set off up the Missouri River in two keelboats on July 15, 1806. This time he had 22 men under his command, including 17 enlisted men who had accompanied him up the Mississippi the previous year and two new volunteers. "Although they are a Dam'd set of Rascals," Pike wrote of the soldiers under his command, "yet in the Woods they are staunch fellows and very proper for such expeditions as I am engaged in." He even brought along the disgraced Private (formerly Sergeant) Henry Kennerman. His expedition also included another officer, Lieutenant James Biddle Wilkinson (General Wilkinson's son), an interpreter, and Dr. John H. Robinson, a physician who may have been working as an agent for Wilkinson.

On the first stage of their journey, Pike's party escorted 51 Osage Indians back to their homes in Kansas. (The Osages had been cap-

tured by Potawatomi Indians and then released into the custody of the U.S. government in St. Louis, and were being returned to their village as a goodwill gesture by the U.S. authorities.) The Pike party headed up the Missouri to the mouth of the Osage River, and then followed the Osage to Grand Osage Vil-

lage, near present-day Osceola, Missouri, which they reached on August 15.

After holding a council with the Osage chiefs, Pike and his men headed west on horseback, leaving their keelboats behind. Before long, their party was reduced in size by one man: the unreliable Private Kennerman



deserted. On September 25 they reached a Pawnee village on the Republic River, near present-day Red Cloud, Nebraska. The Pawnee chief White Wolf warned Pike that the Spanish had been alerted to his expedition and were out looking for him with a large body of mounted troops. The Pawnee seemed to Pike to be sympathetic to the Spanish. He insisted they take down the Spanish flags in their village and replace them with the Stars and Stripes, and he delivered a defiant speech designed to impress his Indian listeners with American resolution: “the young warriors of his *great American father were not women* to be turned back by *words . . .*”

While staying with the Pawnee, Pike learned from a visiting French trader of Lewis and Clark’s recent return to St. Louis from their expedition to the Pacific. As Pike recalled, “this diffused general joy through our party.” It may also have redoubled Pike’s personal ambition to achieve similar glory. On October 7 Pike and his men set off, heading south toward the Arkansas River. At the Great Bend of the Arkansas River, the party divided. Lieutenant Wilkinson set off with four soldiers down the Arkansas River in bullboats (wood-framed vessels covered in animal skins), carrying dispatches and maps back to St. Louis,

while the rest of the party under Pike continued westward on horseback.

As they headed west, Pike and his men feasted on the plentiful buffalo of the Kansas Plains. Their horses were not as lucky, as early snow covered the grass. Once again, as in the previous year on the Mississippi, Pike pressed on when a more cautious commander would have settled in to winter encampment.

PIKE’S PEAK

On November 11, still following the Arkansas River, Pike’s party crossed the present-day border of Kansas and Colorado. On November 15, Pike wrote, “At about two o’clock in the afternoon I thought I could distinguish a mountain to our right, which appeared like a small blue cloud. . . . When our small party arrived on the hill they with one accord gave three *cheers* to the *Mexican mountains*.” What he called the Mexican mountains was the Front Range of the Rockies, still 150 miles distant. Pike and his men were approaching the greatest concentration of high peaks in North America: the stretch of the Rockies passing through Colorado includes 51 mountain summits more than 14,000 feet high.



During his 1806–07 expedition, Pike attempted to climb this mountain (later named Pike’s Peak for him) but failed to reach the summit. (*Library of Congress, Prints and Photographs Division [PAN US GEOG-Colorado, no. 51 (E size)]*)

On November 23, after a hostile encounter with a party of Pawnee who tried to rob the expedition of horses and guns, Pike halted the journey and built a stockade in what is now Pueblo, Colorado. The following day Pike set off with Dr. Robinson and Privates Brown and Miller to attempt to climb a "Grand Peak" in the mountain range that lay before them. Pike thought he was close enough to climb the mountain and return to camp in a single day. Instead, three days later, they were still approaching the mountain's base. From a hilltop to its southeast (possibly Blue or Black Mountain) Pike gazed up at the snowy summit that was their goal and concluded the mountain was unclimbable. Pike's "Grand Peak" would later be known as "Pike's Peak." At 14,110 feet, it is not the highest of Colorado's mountains, but because it stands apart from surrounding peaks, it is highly visible from the Great Plains.

Returning to the stockade on the Arkansas River, Pike gathered up the rest of his party and pressed on. On December 5 they reached a river junction in present-day Canon City, Colorado, where the Arkansas was joined by several smaller creeks. Pike sent his men up the wrong branch, and when the creek became a mere brook, he mistakenly decided

he had found the headwaters of the Arkansas. He spent the next several weeks in a fruitless search for the headwaters of the Red River, his wanderings through the mountainous terrain so erratic and so poorly described in his journal that historians who later tried to retrace his steps could never be sure of where Pike and his party had actually gone. On January 5, to what he described as his "great mortification," he found himself back at the same place on the Arkansas River, near present-day Canon City, which he had led his men away from a month earlier. It was his 28th birthday, and, as he confessed in his journal, "most fervently did I hope never to pass another so miserably."

Pike's men were in a bad way, and their commander made matters worse by dividing his small party. He decided to build another fortification, leaving behind the horses, some of the baggage, and two of his men. On January 14, with 19 men, Pike headed south into the Sangre de Cristo Mountains, still in search of the impossible-to-find headwaters of the Red River. They made it over the mountains, but suffered terribly in the effort. By January 19, Pike reported, "I had become extremely weak and faint, being the fourth day, since we had received sustenance; all of which we were marching hard and the last night had scarcely closed our eyes to sleep." He left more men behind, to catch up later on their own (miraculously, despite the bitter cold, short rations, and frostbitten feet, none of those left behind would die). He threatened another soldier, who had ventured to complain that he had not eaten in three days, with "*instant death*" by firing squad for the crime of "seditious and mutinous" complaining. On February 1 he had his men build yet another fortification near present-day Alamosa, Colorado, on a branch of the Rio Grande, which he mistakenly believed to be the long-sought Red River.





Located in Santa Fe, New Mexico, this adobe building, constructed between 1610 and 1614, served as the Spanish royal palace and the seat of government. (*Library of Congress, Prints and Photographs Division [HABS, NM, 25-SANFE, 2-1]*)

At this point the mysterious Dr. Robinson headed off on his own to ride to the Spanish city of Santa Fe, where he said he had private business to carry out. Whatever his business may have been, Robinson's arrival in Santa Fe seems to have tipped off the Spanish authorities to the presence of U.S. intruders in their neighborhood. On February 26, 100 mounted Spanish soldiers showed up at Pike's small fort and took him and his men into custody (the men Pike had left behind in the mountains were soon rounded up as well). Pike and the main party reached Santa Fe under guard on the evening of March 3. There he was interrogated by the governor of New Mexico, Joaquin del Real Alencaster. Pike maintained that he had strayed into Spanish territory by mistake. "You come to reconnoiter our country, do you?" demanded the governor. "I marched to reconnoiter our own," Pike replied coolly. He did not persuade the governor of his innocent intentions.

From Santa Fe, Pike and his men were taken under guard south to Chihuahua, Mex-

ico. The Spanish were entirely within their rights to arrest Pike and his men, but they were not prepared to go to war with the United States over this intrusion into their territory. If Wilkinson's purpose in sending Pike on his mission had been to launch such a conflict, he had not succeeded. Pike, Dr. Robinson, and six enlisted men were escorted across Texas and released into the custody of American authorities at Fort Claiborne in Natchitoches, Louisiana, on June 30, 1807. Other members of the party were later released. "Language cannot express the gaiety of my heart when I once beheld the standards of my country waved aloft," Pike said of his return.

PIKE'S ACHIEVEMENTS

Pike expected to receive a hero's welcome from a grateful country. In a book he published in 1810 describing his two expeditions, he compared his achievements as an explorer with those of Lewis and Clark. But his coun-

trymen did not agree. By the time Pike had returned to the United States, Aaron Burr had been arrested on charges of treason. Burr was acquitted in 1807, but he left the country in disgrace. General Wilkinson fell under well-deserved suspicion, and Pike's association with Wilkinson did him little good in public esteem.

Considered on its own merits, Pike's expedition paled in comparison with Lewis and Clark's. The Pike expedition represented the first exploration by Americans of the route across the plains to the southern Rockies, and it was the second official expedition to cross the Continental Divide. Although it filled in some blank spaces on the map, the most lasting effect of the expedition was its contribution to yet another geographical misconception about the nature of the American West. "This vast plains of the western hemisphere,"

Pike wrote in his 1810 book, "may become in time as celebrated as the sandy deserts of Africa; for I saw in my route, in various places, tracts of many leagues where the wind had thrown up the sand in all the fanciful forms of the ocean's rolling wave, and on which not a speck of vegetable matter existed." Thus was born the myth of the Great American Desert.

Pike was more successful as a spy than as a scientific explorer. He kept his eyes and ears open while in captivity and gathered detailed information on Spanish troop deployments in New Spain. "Should an army of Americans ever march into the country," Pike predicted, "they will only have to march from province to province in triumph." As it turned out, however, the United States would not go to war in the Southwest until 1846, when it fought an independent Mexico, and Pike's espionage was of no use by then.



The Americans defeated the British and American Indians at York (present-day Toronto) in the War of 1812. Pike was killed during the battle. (*National Archives of Canada*)

Pike remained in the army, and in the War of 1812 he was given command of the 15th U.S. Infantry. He died in battle on April 27, 1813, commanding U.S. forces in the Battle of York. After his heroic death, he rose in public estimation. The first steamboat to travel up the Mississippi River and arrive in St. Louis in 1817 was named the *Pike*. Pike's Peak in the Rocky Mountain Front Range would later become a favorite American tourist destination, with a cog railway and a road built to its top. It was after a visit to the summit in 1893 that Katherine Lee Bates wrote the words to

"America the Beautiful." Pike's discovery was the original inspiration for the famous lyric about "purple mountains' majesty."

By the time Thomas Jefferson stepped down from the presidency in 1809, the United States was double the size it had been when he had taken office in 1801. Some of the new Louisiana Territory had been explored, but much remained unknown. The next great phase of western exploration was undertaken by individuals and companies out for private gain in the era of the mountain men.

FUR TRADERS AND THE EXPLORATION OF THE WESTERN FRONTIER



Had there been no beavers in North America, the full exploration of the American West might have been delayed by years. In the early decades of the 19th century, a few score intrepid explorers, most of them military men, traveled in the western territories of the United States on officially sanctioned expeditions. Thousands more, though, headed there on their own initiative, caring little about exploration for its own sake, but a great deal about the price a beaver pelt would fetch in New York, Montreal, or London.

The fur trade was a vast international enterprise linking North America with Europe and Asia. The men who gathered the furs in the western American wilderness did not, for the most part, keep systematic records of their exploration. But through word of mouth and accounts in the popular press, the exploits and discoveries of these “mountain men” con-

tributed to increasing the geographical knowledge of the American West. The paths the mountain men followed along riverbanks and across open plains and the passes they crossed in the Rocky Mountains would soon be followed by tens of thousands of pioneers and settlers along the Oregon and Santa Fe trails.

ORIGINS OF THE FUR TRADE

For 1,000 years before the Louisiana Purchase, elaborate trade networks linked distant tribes of Native Americans. Shells, dried fish, and whale oil harvested by Indians living along the Pacific Northwest were traded for furs, turquoise, and obsidian cutting tools by tribes living east of the Rocky Mountains, while the Indians of the Plains traded buffalo robes for corn grown by tribes living along the Missouri

River. The arrival of whites (the Spanish in the Southwest, the French in Canada, and the English along the Atlantic seacoast and the shores of Hudson Bay) built upon these existing trade networks, adding tools and weapons fashioned of iron, brightly colored beads, tobacco, brandy, and blanket cloth to the list of goods exchanged.

The most valuable resources the Indians had to offer the white traders were furs, including the pelts of bears, foxes, martens, wildcats, wolverines, muskrats, minks, and otters. But of all the furs of North American mammals, that valued most by whites was the beaver's. The fine short underlayer of beaver fur, its "wool," could be used to make felt, a cloth produced by the pressing or treating of animal hair with chemicals. The felt made from beaver wool was not only waterproof and durable, but soft to the touch, ideal for the manufacture of hats. From the start of the 17th century until well into the 19th century, such hats were all the rage among the fashionable gentlemen of London and Paris.

French settlers in Canada were in the vanguard of this profit-inspired exploration of the North American interior. French explorer Jacques Cartier made three expeditions up the St. Lawrence River between 1534 and 1541. Like many others who came to North America in those years, he came looking for gold and the Northwest Passage, and found neither. What he did find were Indians so eager to trade furs for European goods that they literally stripped the fur clothing from their backs. "They bartered all they had to such an extent that all went back naked without anything on them," Cartier wrote of his encounters with Indians along the shores of the St. Lawrence on his first trip up the river in 1534, "and they made signs to us that they would return on the morrow with more furs." By 1608 French explorers Samuel de Champlain had estab-

lished a trading post at what would become the city of Quebec. In decades to come, French *voyageurs* (boatmen) and *coureurs du bois* (literally "runners of the woods," or woodsmen) began making their way westward, in birch-bark canoes, exploring the tributary rivers of the St. Lawrence northward toward Hudson Bay, reaching and crossing the water chain of the Great Lakes, and then looking ever farther to the west for new sources of furs.

The English were relative latecomers to the North American fur trade, but with the formation in 1670 of the Company of Adventurers in England Trading into Hudson's Bay (better known as the Hudson's Bay Company), they emerged as fierce rivals to the French merchants of Quebec and Montreal. To the south, the French monopoly on the fur trade west of the Appalachian Mountains was challenged in the 1750s by the appearance of British-American traders in the Ohio Valley, one of the causes of the French and Indian War of 1754–63.

In 1763, with the English victory, Canada was added to the British Empire. The Hudson's Bay Company might have been expected to extend its monopoly over the entire country's trade. Instead, the Hudson's Bay traders found themselves challenged by independent traders and trappers, both English and French. In 1784 a group of merchant traders, some of them French and some Scottish, who were based in Montreal united to form the North West Company, whose employees would go on to play a significant role in the exploration of western Canada and the Pacific Northwest. Meanwhile in Alaska and farther south along the Pacific coast, the Russians were developing their own fur trading empire under the auspices of the Russian American Company. The search for furs sparked a clash of empires across the North American continent.



"CONTINENTAL"
COCKED HAT.
(1775)



"NAVY"
COCKED HAT.
(1800)



ARMY. (1827)



CLERICAL.
(Eighteenth Century)



(THE WELLINGTON.)
(1812)



(THE PARIS HEAT.)
(1812)

CIVIL



(THE D'ORSAY.)
(1800)



(THE REGENT.)
(1815)

MODIFICATIONS OF THE BEAVER HAT.

Popular for more than two centuries, beaver hats were fashioned into the many different styles shown here. The popularity of the hats motivated fur traders to collect great quantities of pelts. (National Archives of Canada)

The fur trade in the United States was never as highly organized or centralized as the French and British fur trading enterprises, despite efforts by the U.S. government to imitate the success of the Hudson's Bay Company. In 1796 Congress passed legislation establishing a system of government-run "factories"—really trading posts on the frontier. But a variety of problems (including a prohibition on trading liquor for furs), weakened the factories in the face of private competition. The program was abandoned in 1822.

THE CHINA TRADE

Meanwhile on the Pacific coast, British and American sailors had discovered a new and lucrative market for North American furs. The famed British explorer Captain James Cook failed to find the Northwest Passage during an expedition he led along the Pacific coast of North America in 1778–79 (and Cook failed to survive the expedition, dying in a conflict with Hawaii islanders). But Cook's sailors found something else of value instead—the sea otter pelts that they bought from the Pacific coast Indians for trinkets. When Cook's ships put in to Canton, China, on their return voyage in 1780, the sailors sold the pelts for such astonishingly high prices that the crew was all for turning around and heading back to America, and nearly mutinied when they were told to sail on to England instead.

Four years later, in 1784, a U.S. merchant vessel, *The Empress of China*, sailed from New York to Canton with a load of ginseng root, highly valued by the Chinese. When it returned to New York the following year, its hold stuffed with tea from China, it earned its principal investor, financier Robert Morris, a 30 percent profit on his capital in-

vestment. The U.S.-China trade was up and running.

By this time accounts of Cook's voyage and its outcome, including the story of the fur profits, had reached the United States. British ships were already setting out from India to sail across the Pacific to gather sea otter pelts for the China market. U.S. shipowners and investors interested in the China trade realized that they could make even higher profits by adding a stop on the Pacific Northwest coast, trading manufactured goods there to the coastal Indians for furs, carrying the furs to China, and then returning with exotic goods like tea, por-



After many Pacific Ocean expeditions, James Cook died on an expedition in search of the Northwest Passage. (Library of Congress)

celain, and textiles for sale on the U.S. market. By 1806 more than 70 U.S. merchant ships had visited the Pacific Northwest coast in this often spectacularly profitable venture. One of the U.S. merchant ships that pioneered the China trade, the *Columbia Rediviva*, sailing out of Boston under the command of Captain Robert Grey, discovered and sailed into the mouth of a great river on the northwestern American coast in May 1792. Grey named the river the Columbia, after his ship. News of the river's discovery helped spur Thomas Jefferson's decision to send out Meriwether Lewis and William Clark a decade later on their quest to find a water route across the continent. Together, Grey's discovery of the Columbia, and Lewis and Clark's exploration of the river, provided the main basis for the subsequent U.S. claim to the Oregon Territory.

THE CHOUTEAU FAMILY AND THE ST. LOUIS FUR TRADE

Like Quebec and Montreal to the north, the city of St. Louis was founded on the fur trade. In 1763 a New Orleans merchant named Pierre Laclède journeyed up the Mississippi to found a trading post at the river's junction with the Missouri. Accompanying Laclède were a party of workmen and his 14-year-old stepson Auguste Chouteau. Laclède died in 1778, but his children August and Pierre (Auguste's half-brother) went on to found a family fur trading dynasty. The "brown gold" of beaver pelts that flowed into the city from the Great Plains and the Rocky Mountains remained the city's most important source of wealth well into the 19th century.

St. Louis long retained its frontier character. The U.S. novelist Washington Irving

described its appearance in the early 19th century:

Here are to be seen about the river banks the hectoring, extravagant [and] bragging boatmen of the Mississippi, with the . . . grinning, singing, good humored Canadian voyagers. Vagrant Indians, of various tribes, loitered about the streets, [while] a stark Kentucky hunter, in leather hunting-dress, with rifle on shoulder and knife in belt, strode along. Here and there were new brick houses and shops, just set up by bustling, driving and eager men of traffic from the Atlantic states.

When St. Louis passed from Spanish to American control in 1804, the number of "driving and eager men" from the East increased dramatically. The Chouteaus had no intention of being pushed aside by the English-speaking newcomers and were eager to establish their loyalty and usefulness to the U.S. government by providing information to Lewis and Clark about what to expect from the Indians they would encounter along the Missouri River. Pierre Chouteau's son, Auguste-Pierre, or A. P. Chouteau, as he would be known, was one of the first cadets to be accepted into the newly created U.S. Military Academy at West Point, New York. On his return to St. Louis, A. P. Chouteau served as an aide to the territorial governor, General James Wilkinson. He also made several journeys up the Missouri to trade with the Mandan and Arikara Indians in 1807 and 1808. In 1809, along with his father, A. P. became a partner in the St. Louis Missouri Fur Company. The various Chouteau enterprises over the next half-century or so would leave the West sprinkled with family place-names, from Fort Pierre in South Dakota to Chouteau County in Montana, as well as the town of Choteau, seat of Montana's Teton County.



In this painting, Missouri fur traders are attacked by American Indians, emphasizing the dangers of doing business on the frontier. (*National Archives of Canada*)

MANUEL LISA

Apart from the Chouteaus, the most notable figure in the early 19th century St. Louis fur trade was a newcomer to the city named

Manuel Lisa. Born to Spanish parents in New Orleans in 1772, Lisa moved to St. Louis in 1799, where he emerged as the Chouteaus' chief rival in the fur trade. He, too, conferred with Lewis and Clark, though for unknown



reasons he aroused Lewis's anger; Captain Lewis denounced the trader as a "great scoundrel" shortly before setting out up the Missouri in 1804. But Lewis's antagonism to Lisa did not survive the trip, and they estab-

lished a working relationship on the return of the Corps of Discovery from the Pacific.

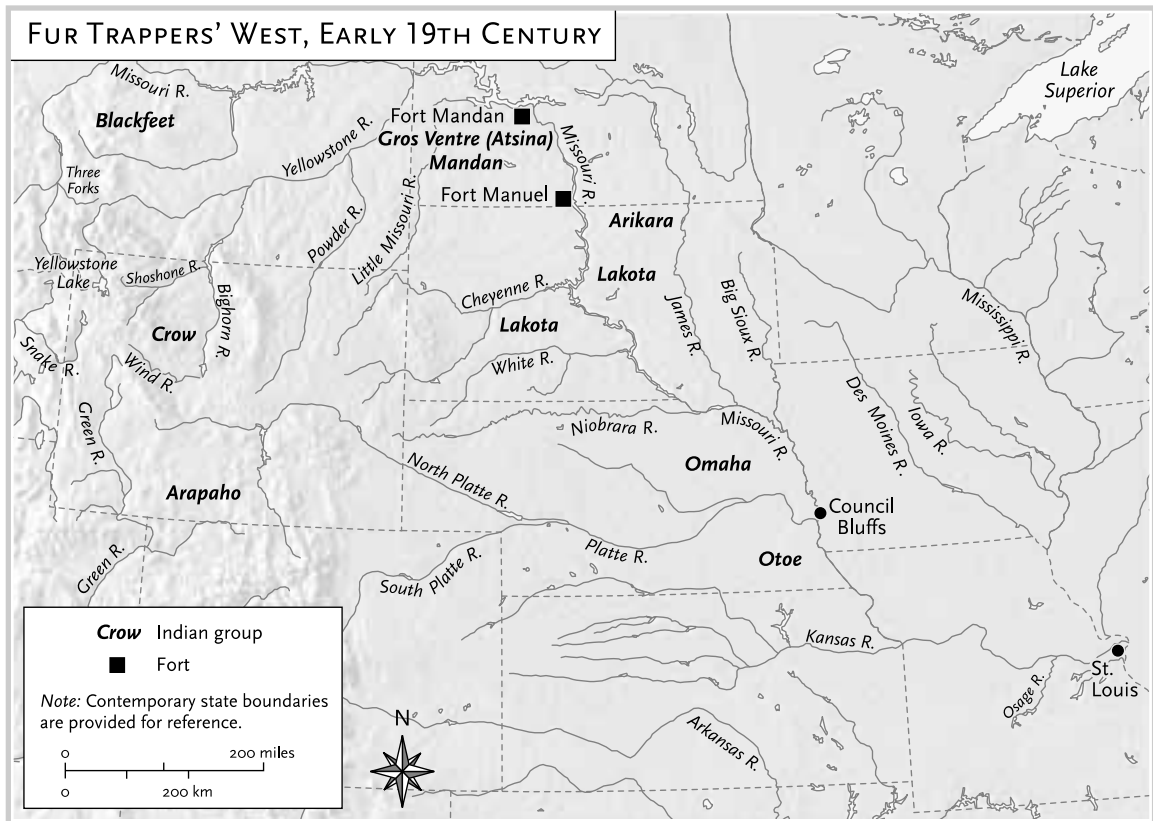
Lisa paid careful attention to Lewis and Clark's account of their journey and was quick to follow their path westward, traveling up the Missouri in 1807 at the head of a 42-man trading and trapping expedition that included Corps of Discovery veteran George Drouillard among its members. This was the first large fur trading party to depart from St. Louis with the intention of leaving behind the familiar region of the lower Missouri River and heading west into unexplored territory. En route Lisa recruited another veteran of the Lewis and Clark Expedition, John Colter, a particularly valuable addition to the party since Colter was returning from a winter trapping in the foothills of the Rockies where he had gone with two independent fur traders, Forrest Hancock and Joseph Dixon.

The Lisa Expedition branched off from Lewis and Clark's path up the Missouri when they reached the mouth of the Yellowstone River. They followed the Yellowstone west to the mouth of the Big Horn River, and there established a trading post they called Fort Raymond. From Fort Raymond John Colter went on alone to pass the word about the new trading post to surrounding Indian tribes. Colter crossed the Wind River mountains in present-day Wyoming, the first American to explore that mountain range, which would figure largely in the story of western migration over the next half-century. He viewed the Teton Mountains from a distance. And, in northwestern Wyoming, he came upon an incredible region of thermal hot springs and geysers, unlike anything any white explorer in the West had ever seen before. When Cody returned to Fort Raymond to report on what he had seen, no one believed him; his fellow trappers laughed at the tale of "Colter's Hell."

No one was laughing at Manuel Lisa when he returned to St. Louis the following spring, having turned a healthy profit on his venture up the Yellowstone. He had now emerged as the leading figure in St. Louis's fur-trading community, and easily attracted partners, including the Chouteaus and William Clark, to invest in his newly organized St. Louis Missouri Fur Company. The enterprise, its name soon shortened to Missouri Fur Company, sent out trappers and traders as far west as the Three Forks region of Montana. In a hostile encounter with Blackfeet Indians in summer 1808 near the Three Forks, another veteran of the Lewis and Clark Expedition named John Potts was killed, and John Colter barely escaped with his life. Captured by the Black-

feet, Colter was stripped naked and given a head start to escape by the Blackfeet warriors, who wanted to enjoy a little sport before killing him. To the Blackfeet's dismay, Colter managed to kill one of his pursuers and out-run the rest; after an epic seven-day flight through the wilderness, he arrived back to the safety of Fort Raymond.

While Lisa's employees in the Rockies were risking life and limb in the far West, Lisa himself was busy regularizing the fur trade up and down the Missouri, with a chain of newly established trading posts, including Fort Manuel and Fort Lisa. Lisa's business dealings were always tangled. He was distrusted for his sharp trading practices and fell out with his partners in the Missouri Fur Company, which



was dissolved in 1813. In 1819 he formed a new company of the same name, which he ran until his death in St. Louis in 1820. His sometime partners, sometime rivals, the Chouteaus, remained important figures in the fur trade for many more years, in a variety of companies, pushing beyond their traditional trade routes on the Missouri to the Rockies, until the decline of the fur trade in the 1860s led them to concentrate on other enterprises.

JOHN JACOB ASTOR'S FUR EMPIRE

St. Louis was not the only city where fortunes were made in the fur trade. New York City was another, and there the great figure was John Jacob Astor. Born in Germany in 1763, Astor immigrated to the United States in 1783. He carried with him a supply of flutes to sell in his newly adopted homeland. Through a chance encounter with a fur merchant on the ship that carried him across the Atlantic, Astor decided furs would prove a more profitable enterprise. A short, heavyset, and comfort-loving man who never shared the wilderness hardships of his employees, Astor nonetheless played a significant role in opening up the West.

Early in 1808, Astor wrote to Thomas Jefferson seeking the president's approval for a bold new trading venture. While Manuel Lisa was developing a trading empire that extended up the Missouri and the Yellowstone to the eastern edge of the Rockies, Astor wanted to proceed directly to the fur-rich Columbia River basin, opening a permanent fur trading post at the river's mouth. Lisa and the Chouteaus were operating their business in what was already, thanks to the Louisiana Purchase, territory considered part of the United States. Astor proposed opening up an outpost in the "Oregon country." This was ter-

ritory variously claimed by the British, the Spanish, and the Russians, and to which as yet the United States had made no formal claim despite Lewis and Clark's recent exploit. Astor's enterprise, if successful, would strengthen the U.S. claim if and when the Americans decided to extend their nation's boundaries to the Pacific.

Jefferson was pleased with Astor's plans, as were the New York politicians Astor also approached for support. In April Astor's American Fur Company was chartered by the New York state legislature. Later, Astor created the Pacific Fur Company as a subsidiary of the



John Jacob Astor immigrated to America at age 20 and became quite wealthy from the fur trade.
(National Archives of Canada)



The harvesting of sea otter furs along the coast of the Pacific Northwest was a fabulously profitable enterprise and spurred American, British, and Russian exploration of the region. (*U.S. Fish and Wildlife Service*)

American Fur Company to concentrate on trade in the Northwest. Meanwhile in Canada, Astor's rivals heard of his plans and understood the threat it posed to their own commercial interests, as well as to the British claim to the Oregon territory. A representative of the North West Company wrote to the British ambassador in Washington, D.C., in September 1809, advising him that the Americans were aiming "at establishments in trade beyond the Rocky Mountains, and on the River Columbia to which they have no pretensions by discovery, either by water or land."

THE VOYAGE OF THE *TONQUIN*

By 1810 John Jacob Astor was ready to make his move. He devised an intricate plan to send two expeditions to the mouth of the Columbia, one by sea and one by land, which would meet up and established a trading outpost. To carry out the seaborne operation, Astor purchased a 94-foot merchant vessel called the *Tonquin* and put it under command of Jonathan Thorn, a U.S. Navy veteran. Loaded with more than \$50,000 worth of trade goods and carrying a

party of about 30 experienced fur traders, mostly French Canadians, the *Tonquin* set sail from New York Harbor on September 6, 1810.

Thorn proved a good sailor, but a poor commander. He was soon embroiled in a hostile dispute with the fur traders on board. He nearly abandoned 10 of them on a stop at the Falkland Islands, when they were late returning to the ship, returning to pick them up only when the nephew of one of the men he had left behind put a pistol to his head.

The *Tonquin* finally reached the Columbia on March 22, 1811, six months after setting sail from New York. The river's mouth, with its notoriously treacherous sandbars and high waves, had already earned a reputation as "the

graveyard of the Pacific." While the *Tonquin* sat at anchor offshore, Thorn ordered his first officer, John Fox, to take a longboat into the river to find a safe channel. The longboat and its crew disappeared without a trace. A second boat followed, but it met disaster, and only two men were eventually found on shore. Thorn finally took the *Tonquin* into the river's mouth on his own. In a bay on the river's southern shore, at the site of present-day Astoria, Oregon, the expedition built Fort Astoria, a 90-foot-square stockade protected by four small cannons. It became the oldest permanent settlement founded by U.S. citizens west of the Rockies.

The Pacific Fur Company was now in business, but Captain Thorn and the crew of the



John Jacob Astor organized an expedition that sailed from New York to the mouth of the Columbia River. Once there, the explorers established Fort Astoria, shown in this engraving. (*Library of Congress, Prints and Photographs Division [LC-USZ62-79704]*)

Tonquin were not destined to profit by their achievement. Thorn set sail up the Pacific coast for Vancouver Island, where he heard there was rich fur-trading. There he got into a quarrel with the local Salish Indians, several hundred of whom swarmed aboard the *Tonquin*, killing Thorn and his crew. According to a somewhat suspect version of the end of the *Tonquin*, popularized by novelist and essayist Washington Irving, a dying crew member managed to blow up the ship's powder magazine, sinking the ship and avenging its crew with the mass death of the Salish boarders.

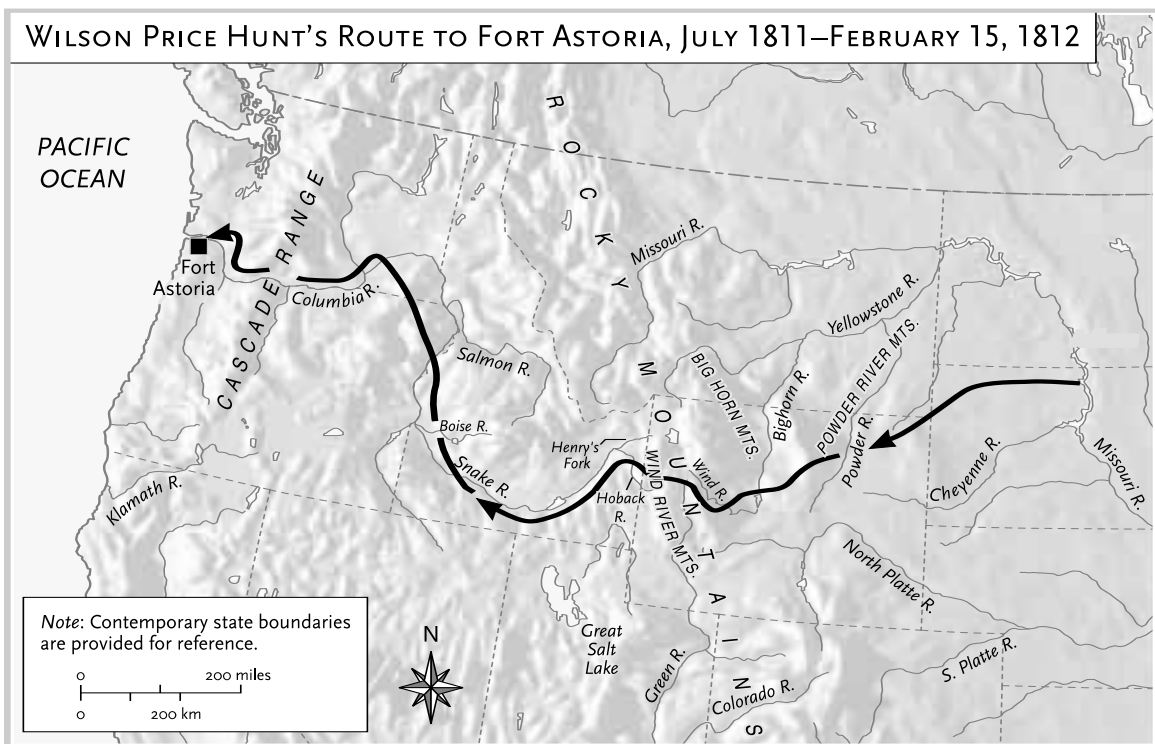
OVERLAND TO ASTORIA

While Thorn and his ill-fated crew were heading for the mouth of the Columbia in 1810–11, another party of Astorians was on its way

overland. The leader of Astor's land expedition was Wilson Price Hunt. Born in New Jersey in 1783, Hunt had moved to St. Louis in 1803. He had been among the St. Louis residents who cheered Lewis and Clark on their return in 1806. Astor hired him in 1809 to lead a party westward along the Lewis and Clark trail.

Before he set off, Hunt had long conversations with Lewis and Clark veteran John Colter, and perhaps with William Clark himself. He was convinced from the conversations that Lewis and Clark's route was probably not the best one to follow, and that a more southerly route across the interior, following the Yellowstone rather than the Missouri River, offered a surer path to and over the Rocky Mountains.

Hunt and his party headed by boat a short way up the Missouri in October 1810, about a





Wilson Price Hunt and his party crossed the Wind River Mountains, whose peaks are visible in this 1892 photograph. (*Library of Congress, Prints and Photographs Division [LC-USZ62-93670]*)

month after the *Tonquin* set sail from New York Harbor. At the mouth of the Nodaway River in present-day Andrews County, Missouri, they made their winter camp. Hunt returned downriver to St. Louis in January and recruited a dozen more travelers and an interpreter, Pierre Dorion, the son of an interpreter who had worked for Lewis and Clark. In March he set off again up the Missouri with 60

men along with Marie Dorion, wife of Pierre, and their two children.

Hunt's plans changed again in May. Meeting some experienced trappers en route, he was convinced by them that rather than following the winding path of the Yellowstone River by boat, he would do better by striking off overland on horseback. Purchasing horses from the Arikara Indians, Hunt's party set off



The Discovery of South Pass

On June 29, 1812, Robert Stuart set off with six companions to return from Astoria to St. Louis, the smallest party of whites yet to attempt a continental crossing. En route, at the southeast end of the Wind River Mountains, they found a pass previously unknown to mapmakers.

The search for such passes became one of the distinctive features of western exploration. The term *pass* itself was not used to describe passages through the Appalachian Mountains, where the common terms were *gap* or *notch*. *Gap* and *notch* suggested a wall breached at a single place, as was often the case in the narrow span of eastern mountains. But western passes were usually longer, often twisting routes through a range of mountains.

South Pass, the pass Stuart discovered, is a 20-mile-wide opening through the Wind River range that rises gradually to a height of 7,550 feet. Unlike other Rocky Mountain passes, South Pass offers abundant water and grass along the way, and proved accessible to wagons pulled by teams of horses or oxen. For that reason, in years to come after Stuart's journey, South Pass would become a crucial element in the Oregon Trail.

across the Dakota plains in July, following the Grand River westward. At first they made good progress, traveling through knee-high prairie grasses that kept their horses well fed while they feasted on buffalo, traveling on a south-westerly angle that took them across a corner of present-day Montana into present-day Wyoming. By mid-August they reached the Powder River range of mountains, followed by the Big Horn Mountains in September, and then crossing the Continental Divide at Union Pass in the Wind River Mountains on September 16. Two weeks later, guided by friendly Shoshone, they crossed Teton Pass and came down into present-day Idaho to find a "beautiful plain," according to Hunt, full of antelope and wild cherries.

But Hunt's opinion of the landscape soon changed, as they began the most difficult part of their journey. At a camp on the banks of the Snake River, they built dugout canoes from cottonwood trees, setting off downriver on October 19. They hoped to follow the Snake

all the way to the Columbia. The river had seemed broad and inviting where they entered it, but it soon narrowed between high, rocky banks, and grew rapid and treacherous. Boats were often swamped, one of the party drowned, and they lost precious supplies and time. Finally, on November 9, finding the river utterly impassable, Hunt split his party in two, with one party proceeding up the south bank, the other on the north bank. Rough terrain, snow, and hunger made them despair of ever reaching their goal. The two parties lost contact with each other and made their way separately westward. Finally, on January 21, Hunt's party reached the Columbia River. "With difficulty," Hunt noted in his journal, "I expressed the joy at the sight of this river."

Heading down the Columbia to its mouth, they met a Clatsop Indian who, Hunt noted, asked "for news about Mr. Lewis and Mr. Clark and some of their companions." On February 15, 1812, they reached Fort Astoria. Their companions who had left them at the Snake

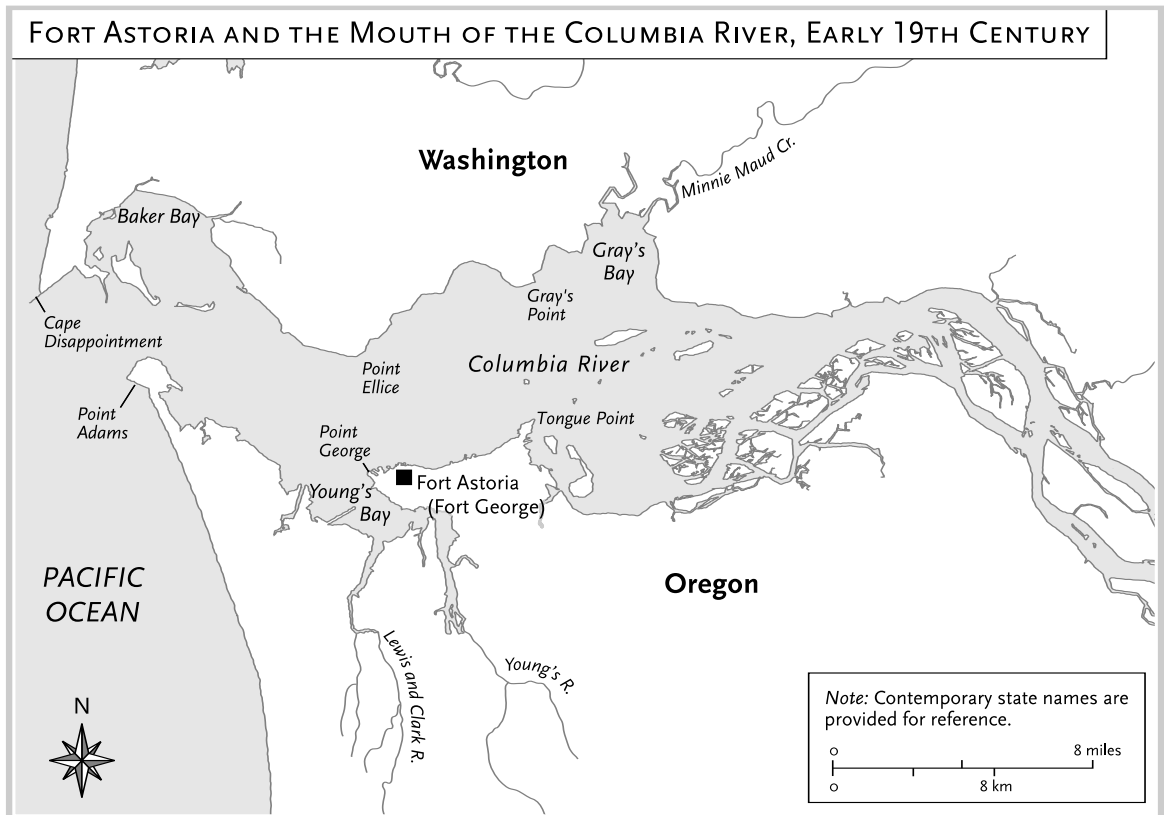
River had already arrived safely. "It was a great delight for travelers overcome with weariness to rest comfortably, surrounded by friends, after such a long journey in the midst of savage people of whom it is always wise to be wary," Hunt wrote of the occasion. Although they had chosen an impractical route across the continent, they had actually beaten Lewis and Clark's time traveling from St. Louis to the Pacific by two months.

THE WAR OF 1812 AND ITS AFTERMATH

The trading post the Astorians established on the Columbia River would ultimately strengthen U.S. claims to control of the Oregon Territory. But the U.S. flag did not fly very

long over Fort Astoria before it was replaced by the British flag. Although the United States declared war on Great Britain four months after Wilson Price Hunt's party reached Fort Astoria, news of the War of 1812 did not reach the Astorians until January 1813. John Jacob Astor was worried about the future of his Oregon venture, and asked the U.S. government to send soldiers to the Pacific Northwest to defend Astoria. But the war was going badly in the East, and there were no soldiers to spare for a such a distant and unimportant outpost as Astor's trading post.

British fur traders, meanwhile, saw their chance to eliminate a commercial rival. In October 1813 a party from the North West Company appeared at the gates of Fort Astoria,



demanding that the trading post be sold to them upon the threat of an attack from the Royal Navy. Astor's employees, many of whom were Canadian-born and former employees of the North West Company themselves, had no particular interest in dying for John Jacob Astor or the United States. Knowing resistance was futile in any case, they quickly agreed to sell the fort to the North West Company, and it was renamed Fort George in honor of George III. Most of Astor's employees now went to work for the North West Company.

The future of the Oregon country seemed to lie with the British, not the Americans. But with the peace settlement of 1814 calling for the return of all captured territory, Americans regained access to Oregon, although not to the premises of Fort Astoria, which remained in British hands. A separate treaty, known as the Treaty of 1818, essentially left the future of the Pacific Northwest up for grabs between the United States and Britain, as Americans and British citizens alike were given the right to move freely, conduct business, and settle in the region stretching above the Spanish-controlled territory to the south in California, and below the Russian-controlled territory to the north in Alaska.

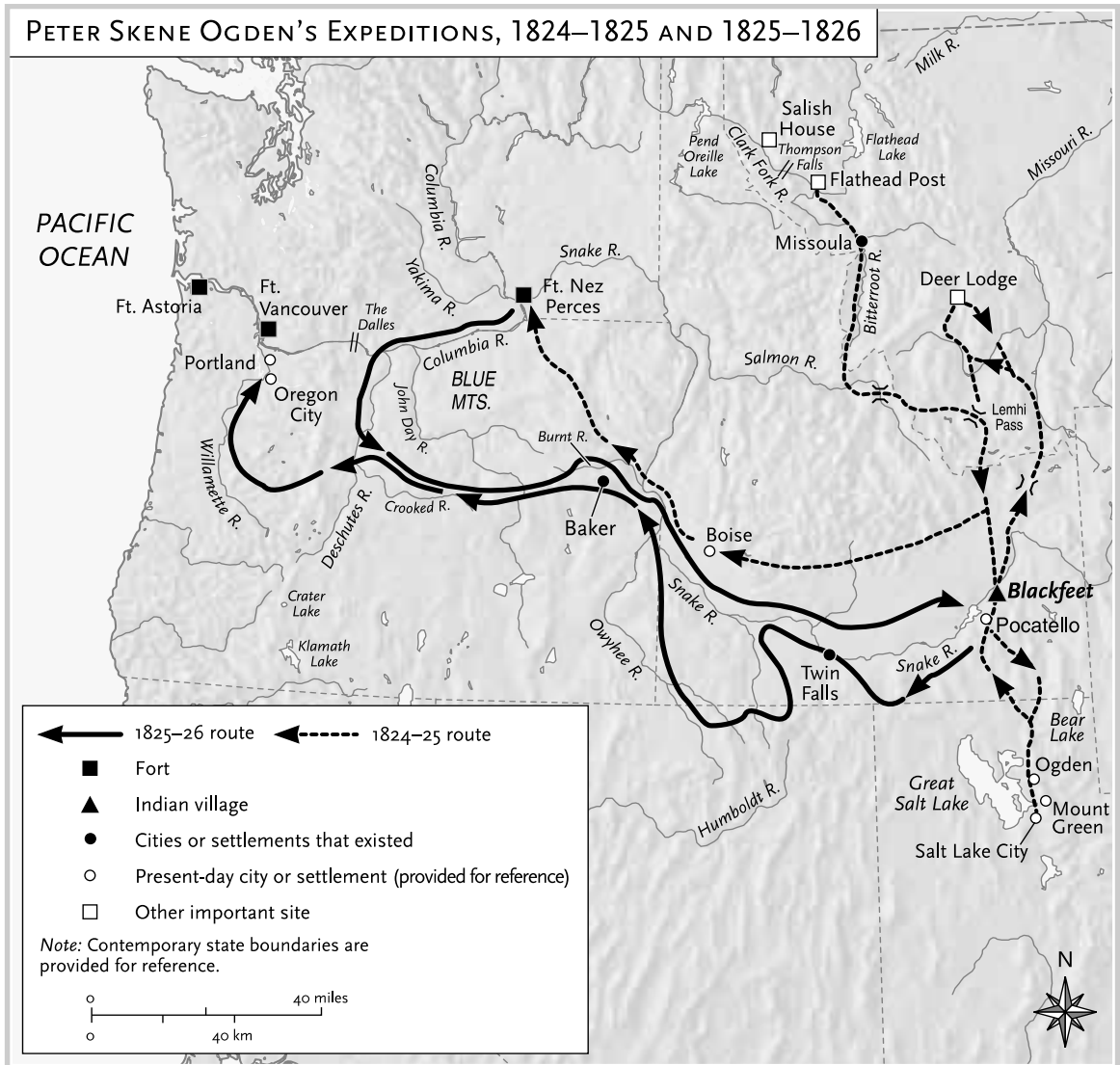
The North West Company had maintained a trading post called Spokane House near present-day Spokane, Washington, since 1810, and in 1824 the Hudson's Bay Company established another trading post at Fort Vancouver (present-day Vancouver, Washington). From Fort Vancouver, for the next two decades, the Hudson's Bay Company's Columbia Department, under the direction of Dr. John McLoughlin, extended its fur gathering over an enormous stretch of future U.S. territory, including northern California, Oregon, Washington, Idaho, and Utah. By the time Americans came to control this region, the beavers would be all but wiped out. This overtrapping

was a deliberate policy. British traders hoped that by creating a scarcity of furs, they could create a barrier to U.S. expansion westward. U.S. trappers would not bother to come to the Pacific Northwest if they knew that there were no furs to be taken there, and if the trappers stayed away, so the thinking went, so would U.S. settlers. Following this strategy, the Hudson's Bay Company sent one of its best men, Peter Skene Ogden, to create a "fur desert" in the Snake River country.

THE SNAKE RIVER COUNTRY EXPEDITIONS

The Snake River is the principal tributary of the Columbia River. With its headwaters in the Yellowstone National Park, it flows across the northwest corner of Wyoming, through southern Idaho, up the Oregon/Idaho border, and into southeastern Washington before emptying its waters into the Columbia. In the 19th century the Snake River country was considered to be all the land drained by the Snake River, from southern Washington to northern Utah. Lewis and Clark had explored some of this territory on their westward journey in 1805 and their return in 1806. In the years that followed, traders from the North West Company made some brief forays into the region. The greatest explorer of the region was undoubtedly Peter Skene Ogden.

Ogden's father was an American loyalist who fled to Canada in the aftermath of the American Revolution. Born in Quebec in 1794, Ogden grew up in Montreal, where he briefly worked for John Jacob Astor, who maintained a fur warehouse in the city. In 1809 he switched employers, joining the North West Company. In fall 1810 the North West Company sent him on his first fur trading mission westward, to Canada's Saskatchewan River region. He developed a reputation for vio-



lence, engaging in malicious pranks against his rivals and allegedly murdering an Indian in 1816 for trading with the Hudson's Bay Company. None of this seemed to bother his employers in the North West Company, who advanced him steadily in responsibility. In 1818 he traveled from a North West Company trading post at Île à la Crosse, across the Rock-

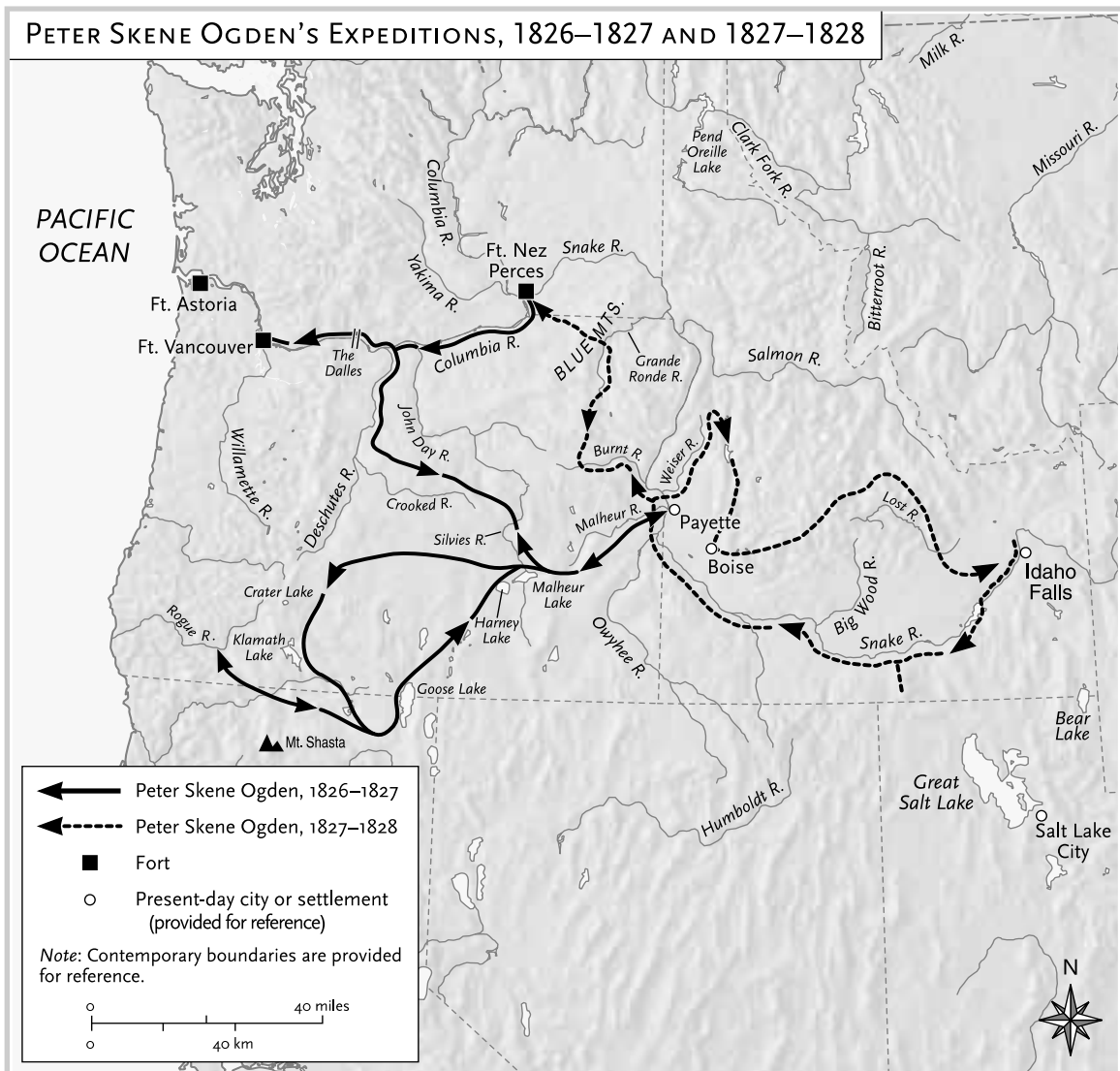
ies and down the Columbia to Fort George (formerly Fort Astoria). For the next several years he served at Fort George and the North West trading post Spokane House.

When the North West and Hudson's Bay companies merged in March 1821, the Hudson's Bay Company at first refused to employ Ogden, but by 1823, after Ogden had made a

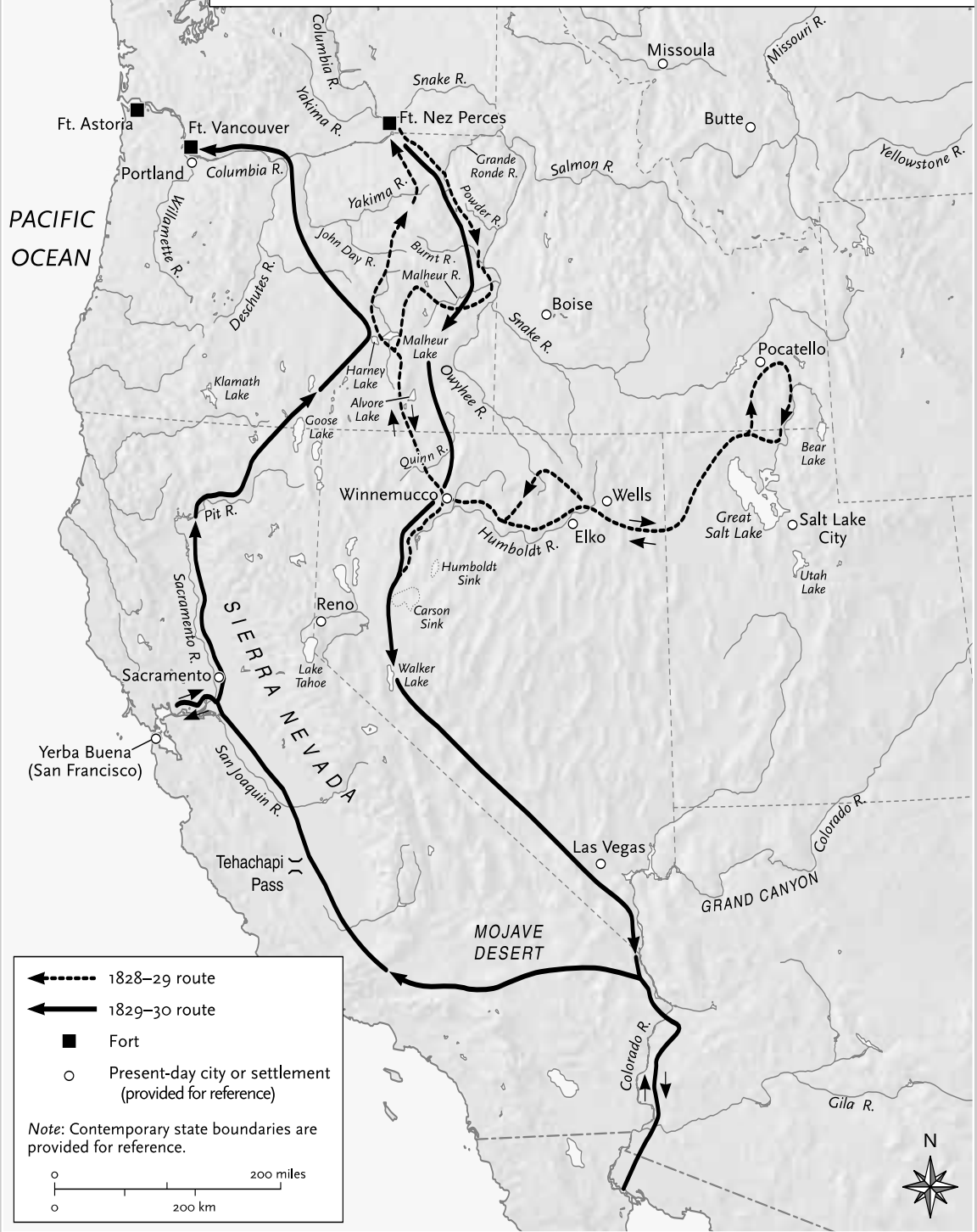
trip to London to plead his case, he was rehired to lead trading expeditions into Snake River country.

On his first expedition to the region, in 1824–25, Ogden led a party of 58 men, and a number of women and children, and explored a region in southeastern Idaho and northern Utah, including the Cache Valley, Ogden Val-

ley, and Weber River Valley. Ogden got into a heated confrontation with U.S. trappers near the Great Salt Lake in present-day Utah. U.S. trapper Johnson Gardner challenged the Hudson's Bay Company's right to trap on what he regarded as U.S. territory. Ogden declared that by the Treaty of 1818 he had the same right to trap in the region as the Americans. Gardner



PETER SKENE OGDEN'S EXPEDITIONS, 1828–1829 AND 1829–1830



continued to order him to leave, to which Ogden replied menacingly, “When we receive orders from the British government we shall obey.”

The truth was that neither Ogden nor Gardner were on particularly strong ground diplomatically—that part of Utah was then neither British nor American, but a northern province of Mexico, which had gained its independence from Spain in 1821. The fact that the Americans were offering to pay more for pelts than the Hudson’s Bay Company led nearly two dozen of Ogden’s party to defect, carrying off some of their valuable pelts.

Undiscouraged, Ogden set out in 1825 on an even more ambitious expedition from the Hudson’s Bay Company’s outpost Fort Nez Percés, at present-day Walla Walla, Washington. He traveled south in eastern and central Oregon to the headwaters of the Des Chutes River, then heading west across a mountain pass in the Cascade Mountains to the Willamette River, which he followed north back to the Columbia. In 1826–27, again setting off from Fort Nez Percés, he returned to Oregon, and then headed south into Mexican territory in northern California, where he was the first European to come upon Mount Shasta, the southernmost of the great volcanic cones of the Cascade Range. In 1827–28 he followed a route from Fort Nez Percés that took him through unexplored portions in eastern Oregon and southeastern Idaho. In 1828–29 he explored the Humboldt River region of northern Nevada, moving east to the vicinity of the Great Salt Lake in Utah, before returning west to find the source of the Humboldt (which Ogden called the “Unknown River”). This was Ogden’s most economically successful Snake River expedition, as he carried some 4,000 beaver pelts back to Fort Nez Percés.

On a final expedition in 1829–30, Ogden covered an astonishing amount of territory, traveling all the way south through Nevada to the Gulf of California, braving the extreme temperatures of the Mojave Desert as he crossed over to southern California, then turning north up the fertile San Joaquin and Sacramento Valleys, and returning across eastern Oregon home to Fort Vancouver. No white man before him had ever traveled north or south the length of California and Oregon. Ogden’s expeditions were phenomenally successful in exploring new territory, but failed to create the envisioned “fur desert,” or to deter either U.S. fur trappers or the settlers who followed in their wake. On his return from his last and longest expedition, the Hudson’s Bay Company redeployed him to the northwest coast of what would become British Columbia, where he established a trading post near the mouth of the Nass River. Later he would be put in charge of a Hudson’s Bay Company trading post at Fort Vancouver, and he died in Oregon City in 1854. His role in the exploration of the Snake River country is memorialized in the name of Utah’s second-largest city, Ogden.

WILLIAM HENRY ASHLEY AND THE ROCKY MOUNTAIN FUR TRADE

While British and U.S. traders were competing in the Northwest, other U.S. fur traders were exploring the region of the southern Rocky Mountains. Here the key figure was a Missouri entrepreneur and politician named William Henry Ashley. Born in Virginia in 1778, Ashley moved to St. Louis in 1808. A natural leader (he was elected lieutenant governor of Missouri in 1820), he would dramatically expand and transform the fur trading business. In

1822, in partnership with a former associate of Manuel Lisa named Andrew Henry, Ashley's newly founded Rocky Mountain Fur Company advertised for the services of a hundred "enterprising young men." Among the young men responding were some destined to achieve the status of legends in the Old West. They were known as "Ashley men."

Andrew Henry led a group of Ashley men up the Missouri in 1822, founding Henry's Fort, later known as Fort Union, near the mouth of the Yellowstone River. The Missouri River had become an increasingly dangerous place to do business, with the Arikara Indians attacking fur trading expeditions. Ashley and his partner decided to put all their energies into developing the Rocky Mountain trade. In 1824 Ashley led an expedition up the Platte River and over the Rockies to the Green River in present-day Wyoming, which they reached in April 1825. It was on that trip that Ashley followed the Green down to the Uinta Mountain region, where traces of his exploration were found four decades later by John Wesley Powell.

On that same trip to the Rockies, Ashley reorganized the way the fur traders did business. Rather than follow the model of Lisa and Astor, and build permanent trading outposts where Indians would bring furs to exchange for goods, Ashley equipped his own men as trappers and sent them out on horseback throughout the Rockies. This cut the Indians out of the business. It also changed the status of the mountain men. No longer employees, they were now "free trappers," or what would today be called independent contractors. They brought in their year's harvest of furs to trade at an annual summer rendezvous, held at an agreed-upon time at one or another centrally located river valley, each rendezvous an occasion for several weeks of rowdy celebration as well as shrewd bargaining. It proved a very successful way of doing business and, after several profitable years, Ashley sold off his interests in the fur trade, leaving him free to carry on his political career (he would be elected congressman from Missouri in 1830). The free trading rendezvous system Ashley established lived on for another decade and a



African Americans in the Western Fur Trade

In recent years, the role of African Americans in the exploration of the western United States has gained new attention from historians and the public. York, a slave who accompanied the Lewis and Clark Expedition, is probably the best known of these black explorers. Less well known are the exploits of the African Americans, both slaves and free men, involved in the fur trade. Jim Beckwourth, who was the free son of a slave mother, accompanied William H. Ashley on one of his early trips up the Missouri, and in later years prospered as an independent trader; by the end of his life he was a rancher in California. Moses Harris, another of the black "Ashley men," later went on to guide wagon trains along the Oregon Trail. Peter Ranne, another free black, accompanied trapper Jedediah Smith through the Mojave Desert to California. African Americans were also employed at fur trading posts, as cooks, hunters, and blacksmiths.

half, the glory years of the Rocky Mountain fur trade.

JEDEDIAH SMITH

Perhaps the most famous of the Ashley men, and certainly the greatest explorer among them, was trapper Jedediah Smith, born in Bainbridge, New York, in 1798. While still a teenager he read the 1814 edition of the Lewis and Clark journals, edited by Nicholas Biddle, and was drawn to the West: “I wanted to be the first to view a country on which the eyes of a white man had never gazed and to follow the course of rivers that run through a new land,” he once wrote, and he succeeded in his ambition.

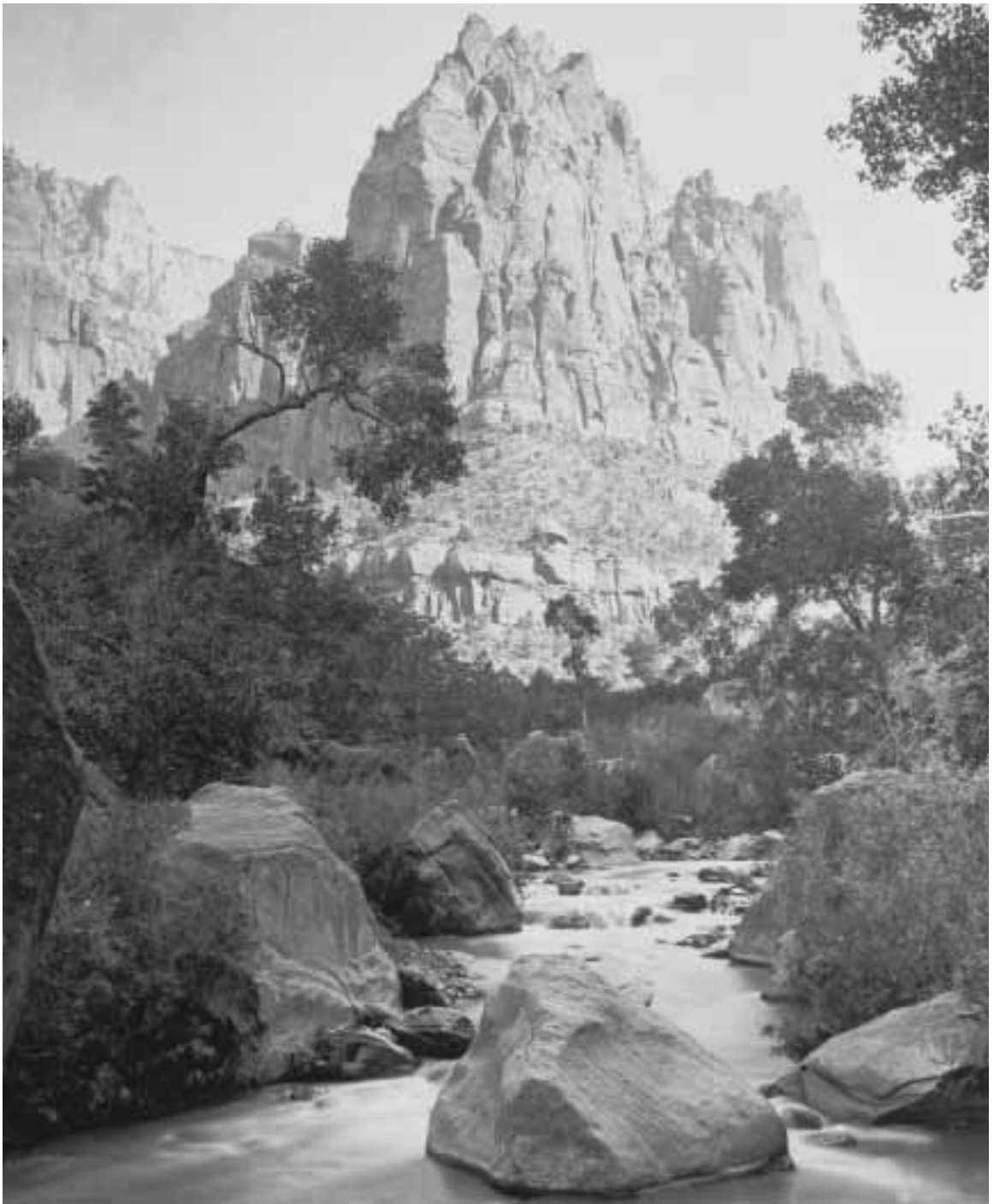
At age 22 he arrived in St. Louis and signed up as an Ashley man. He accompanied Andrew Henry in 1822 to the mouth of the Yellowstone River. The following year he was with the Ashley party that was ambushed by Arikara Indians near Council Bluff on the Missouri River. Smith was a rare figure among the rough men who chose trapping as their profession, holding deeply religious convictions and abstaining from both alcohol and tobacco. There was something about him that inspired confidence among his fellow trappers, and Ashley decided to entrust Smith with the leadership of the next group of mountain men he sent west. Smith ably led a party across the Badlands and Black Hills of the Dakotas in 1823, spending that winter in the Wind River Valley. In spring 1824 he rediscovered South Pass in the Wind River Mountains, whose existence had been forgotten since Robert Stuart had first crossed it in 1812; Smith led the first party of U.S. citizens to cross the pass from east to west, a route soon to be followed by thousands of Oregon-bound settlers.

Smith spent the winter of 1824–25 in the Snake River country of southern Idaho, travel-

ing for a while in the company of Peter Skene Ogden (the Canadian and American thoroughly distrusted each other, so it was an unhappy winter for both). In spring 1825 he found more congenial company, reuniting with Ashley and other U.S. trappers at the rendezvous at Henry’s Fork on the Green River. Ashley made Smith a partner in his fur-trading business, now known as Ashley & Smith.

Smith’s greatest expedition came the next year. On August 7, 1826, he set out with a small party of men from a site near present-day Soda Springs, Idaho. He headed southwest of the Great Salt Lake (which had been discovered the previous year by an Ashley fur trapper named Jim Bridger) across the length of present-day Utah on a route that took him through present-day Zion National Park. Eventually he reached the shores of the Colorado River, at a site near present-day Las Vegas, Nevada. Mojave Indians whom they met living along the Colorado told them of an old trail across the Mojave Desert that had once been used for the trade in seashells between coastal and inland Indians. The trail took them to a small Spanish settlement on the California coast, present-day Los Angeles. The desert trip had been hard, as Smith later wrote: “There for many days we had traveled weary hungry and thirsty drinking from springs that increased our thirst and looking in vain for a boundary of the interminable waste of sands.” In contrast, California seemed like the promised land: “But now the scene was changed. . . . Our path was through a fertile and well watered valley the herds of Cattle and the bands of wild horses as they sniffed the wind and rushed wildly across our way reminded me of the Plains.” Smith and his party were the first U.S. citizens to make the overland journey to California.

The Spanish authorities in southern California were not welcoming, however, and



In late 1826 Jedediah Smith traversed the area that makes up present-day Zion National Park. This photograph of an area along the Virgin River in the park was taken in the 1870s. (*National Archives, Still Picture Records NWDNS-57-PS-81*)

Smith soon headed north to the American River near Sacramento. He headed into the Sierra Nevada, the 400-mile-long mountain range that ran down the eastern side of the great fertile valley of central California. He was, as always, looking for beaver, but also for a way to cross the mountains. According to rumor, there was a river called the San Buenaventura that cut through the mountains and linked the Pacific to the Great Salt Lake. Smith searched in vain for the mythical river. And heavy winter snows blocked the passes through the mountains, preventing his party from heading east.

Then, in May 1827, while the main party and the furs they had gathered on their long trek remained behind, Smith set out with just two men to try and see if he could find a way across the Sierra Nevada. They found a pass, later known as Ebbetts Pass, and got across. This was the first time the mountains had been crossed by whites. On the eastern side of the range they were back in desert country (later known as the Great Basin); their crossing of this desert was another first for white explorers. On June 27, 1827, they reached the Great Salt Lake. Smith's epic journey was among the most difficult in the annals of North American exploration. Returning to California later that year to rejoin the men he had left behind, Smith and his party were attacked by Indians on two different occasions; of the 18 men who had set out with him the previous year, only Smith and three others survived.

Smith would have other adventures, exploring as far north as the Canadian border, viewing the area that became Yellowstone National Park, as well as other splendors. He reported on British strength in the Pacific Northwest to the U.S. secretary of war. But his luck ran out on May 27, 1831, when he was attacked and killed by Comanche Indians en route to Santa Fe.

Other fur trappers would follow Smith's example and head for California. Joseph Walker led a party across the Nevada desert in 1833; following a river (later known as the Walker River) into the mountains, he made a late October crossing through heavy snows. On the west side of the mountains, his party glimpsed a dramatic valley landscape, where waterfalls fell from high cliffs to the river bottom. They were the first whites to stumble upon the Yosemite Valley.

THE DECLINE OF THE FUR TRADE

The fur trappers' exploits were widely celebrated in their own lifetime. In the 1830s the popular novelist and historian Washington Irving wrote vivid and somewhat fanciful accounts of the founding of Astoria, as well as the adventures of Benjamin Louis Eulalie de Bonneville, a French immigrant and U.S. army officer, who played a significant role in the exploration of the Rockies (among other achievements, he was the first to take wagons over the South Pass). Jim Bridger, Kit Carson, and others also caught the popular imagination. Before there were any cowboy and Indian stories to entertain American children and their parents, there were already mountain men and Indian stories. It was those fantasy stories about lone, heroic white men bravely facing down the challenge of wild terrain, wild animals, and hostile Indians that established the guidelines by which Americans would think of the West for generations to come.

But the mountain men were victims of other forces beyond their control. It was getting harder and harder to catch beavers, as the animal's population along the Missouri, the Yellowstone, the Columbia, and even remote streams in the Rockies, declined precipitously

in the 1820s and 1830s. Fortunately for the few remaining beavers, felt hats went out of fashion in Europe in the 1830s, in favor of silk hats. A beaver pelt that would have sold for \$5 on the London market in 1829 brought a mere 85 cents by 1846. So at the same time that

beavers were harder and harder to catch, there was less and less reward for making the attempt. The mountain men drifted off to other occupations, and into legend, but not before having made a significant contribution to the exploration of the American West.

4

THE EXPLORATION OF WESTERN CANADA



The United States was not the only country on the North American continent to have its national destiny bound up with the history of western exploration and settlement. That is a distinction it shares with Canada.

Among the nations of the world, today Canada is second only to Russia in total land mass. Canada's boundaries enclose nearly 4 million square miles (including inland waters), a vast region stretching more than 3,200 miles in width from Newfoundland in the east to the Yukon Territory in the far northwest. However, Canada is also one of the least densely populated countries in the world, home to one-tenth the population of the United States. In the 19th century the disparity in population with an expansionist-minded neighbor to the south was rarely far from the minds of Canada's leaders, and underscored the need for western exploration and settlement. John A. Macdonald, destined to become Canada's first prime minister, declared in a letter written in 1865: "If Canada



John A. Macdonald's parents immigrated to Canada from Scotland when John was five years old. He would later become the first prime minister of Canada. (*Library of Congress, Prints and Photographs Division [LC-DIG-cwpbh-00412]*)

is to remain a country separate from the United States, it is of great importance to her that [the United States] should not get behind us by right or by force, and intercept the route to the Pacific.”

EARLY CANADIAN EXPLORATION

The history of the exploration of North America by peoples of European origins began in Canadian territory. In the late 10th century, a few hardy Norsemen under the command of Leif Eriksson found their way across the stormy waters of the North Atlantic and established settlements they called Helluland (probably in present-day Labrador), Markland (probably in present-day Nova Scotia), and Vinland (either in present-day Newfoundland or northern New England). They and their descendants were long gone when John Cabot, an Italian sailor in the service of the king of England, sailed along the coast of Nova Scotia, Newfoundland, and Labrador in 1497, followed by Giovanni da Verrazano, also of Italian origin, but serving the French king, in 1524.

It was a Frenchman, Jacques Cartier, who found the key to opening the Canadian interior to its initial exploration by Europeans, when he came across the Gulf of St. Lawrence in 1534 while searching the coastline for the Northwest Passage. Returning to the gulf the following year, he sailed up what he called “the river of Canada,” the present-day St. Lawrence River.

In a series of expeditions in the early 17th century, Samuel de Champlain thoroughly explored the St. Lawrence and the surrounding region, laying claim in the name of the king of France to the territory that became known as Quebec and planting the first French settlements in the region. Champlain

reached the shores of both Lake Huron and Lake Ontario in 1615, the first time any of the Great Lakes had been glimpsed by Europeans. In the decades that followed, French fur traders and Catholic missionaries emerged as the most important figures in mapping the Canadian interior, pushing their way through the Great Lakes region and beyond. Indeed, the combined forces of church and commerce extended French claims to a vast swath of North America, far exceeding the present boundaries of Canada. In 1673 Jesuit missionary Jacques Marquette and trader Louis Jolliet traveled down the Mississippi and discovered the mouth of the Missouri River. They were followed by the Jesuit-turned-merchant explorer René-Robert Cavelier, sieur de La Salle, who sailed down the Mississippi to its mouth in 1682 and claimed the entire river valley and all the land surrounding its tributaries for Louis XIV of France. Thus was founded the great Louisiana Territory, whose ultimate fate would be decided only 121 years later with its sale by Emperor Napoleon to the United States.

Like their English counterparts in the 17th and 18th centuries, French explorers and geographers clung to the hope that somewhere on the North American continent there could be found a water route that led to the Pacific. The St. Lawrence River, they believed, represented the eastern portion of this Northwest Passage. Somewhere to the west, they theorized, was a great western sea. In some versions of this geographical fancy, the western sea took the form of a great “salt lake” linked to the Pacific by a river running west through the Rocky Mountains; alternately it was thought of as a western version of Hudson Bay, poking deep and directly into the interior of North America from the Pacific. Either way, all the explorers needed to do was to find the route that would take them from the St.



Pierre Gaultier de Varennes, sieur de La Vérendrye, and his two sons explored the area constituting present-day North and South Dakota. In this painting, La Vérendrye stands over a lake, with Native Americans below offering food to one of his expedition members. (*National Archives of Canada*)

Lawrence to the western sea's shores, and the Northwest Passage would belong to France. At first the French explorers and cartographers thought that the Great Lakes (known to them only by tales passed along by the Indians) was this sea. Later, when they reached the Great Lakes and found that the lakes offered no direct outlet to the Pacific, they simply shifted the imaginary sea's location farther west.

No one sought the way across the Canadian interior to the western sea with greater persistence than 18th-century fur trader Pierre Gaultier de Varennes, sieur de la Vérendrye. Together with his sons, Vérendrye set out in search of the Western Sea in the 1730s and 1740s, establishing trading posts along waterways stretching deep into present-day Manitoba and Saskatchewan. Two sons of Vérendrye, Louis-Joseph and François, reached the Missouri River (though they did not know the significance of their discovery), and pushed into present-day Montana and Wyoming. They may even have glimpsed the Rocky Mountains, which would make them the first Europeans to do so.

HUDSON'S BAY COMPANY AND WESTERN EXPLORATION

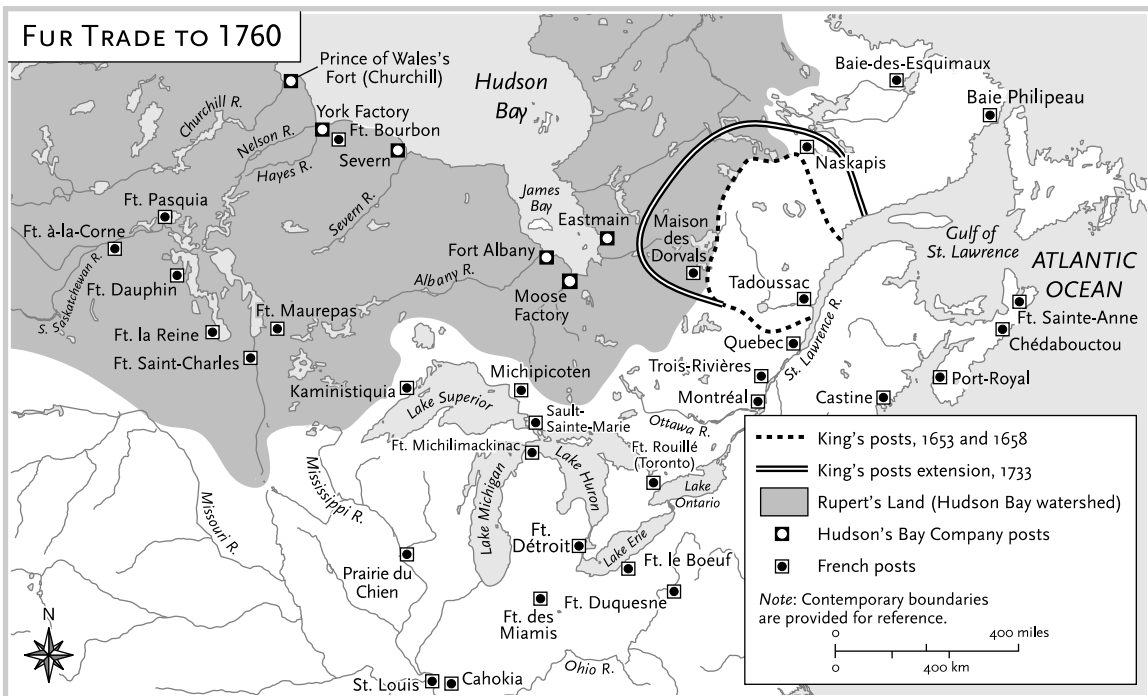
The French in Canada were spurred onward in their exploration of the interior by the knowledge that if they did not quickly lay claim to the western territory and its rich resources in furs, their hated English rivals would. The English had their own claims to a large share of Canadian territory, based on their exploration and control of Hudson's Bay. This region was known as Rupert's Land (named for Prince Rupert, cousin to England's ruler Charles II, and the first governor of the Hudson's Bay Company). It theoretically included

all lands draining into Hudson's Bay, about 1.4 million square miles, although the French had competing claims to much of the same region.

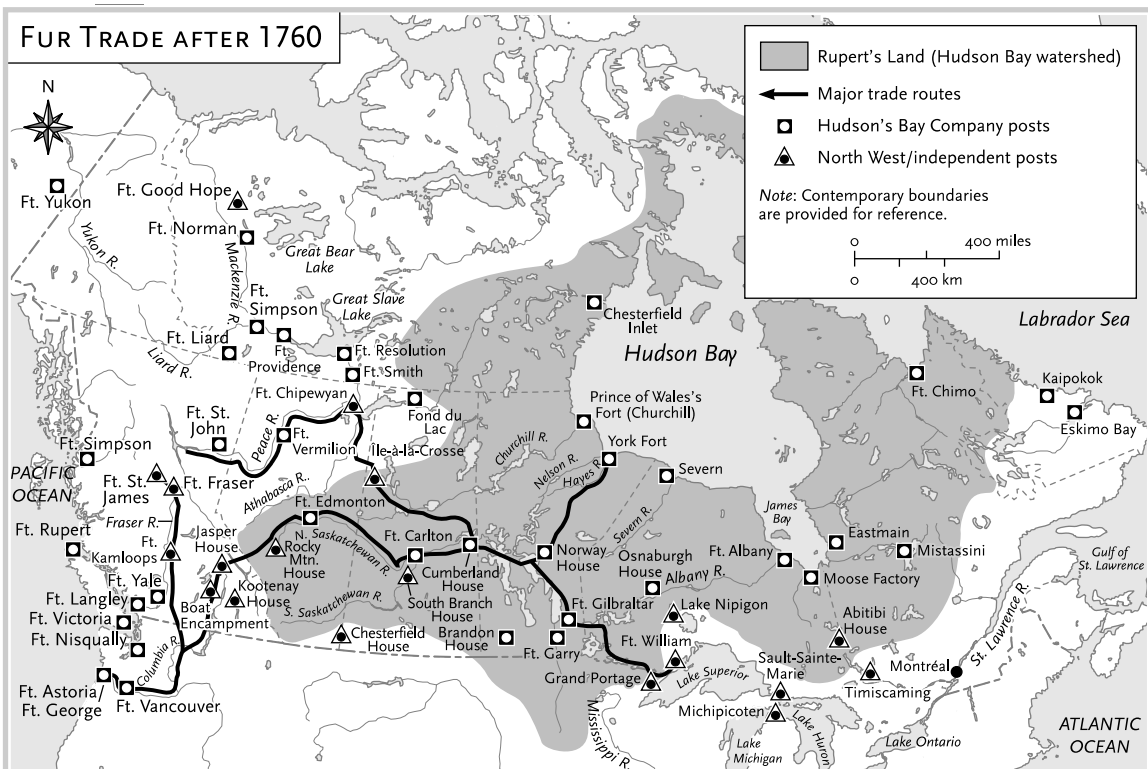
Fortunately for its French competitors, the Hudson's Bay Company proved sluggish in exploring territory farther to the west, notwithstanding the fact that the company's charter pledged it to carry on the search for the Northwest Passage. French fur merchants had built their trading empire by going directly to the Indians, laden with trade goods, and returning to Montreal with bundles of pelts. The Hudson's Bay Company, in contrast, preferred to have Indians do the traveling, and come visit its principal trading post, the York Factory (or Fort), on the western shore of the great bay, sitting between the mouths of the Hayes and Nelson Rivers. Company employees ventured farther west only occasionally, and did not linger long away from the security of their own trading posts.

One early and notable exception to this rule was Hudson's Bay Company apprentice Henry Kelsey. Kelsey traveled west along the Nelson River and reached the Saskatchewan River, and the plains behind it in 1690–92, the first European to do so. Among other accomplishments, he provided Europeans with their first description of buffalo and grizzly bears. Six decades later Hudson's Bay Company laborer Anthony Henday picked up where Kelsey left off. In 1754 Henday, in the company of Cree and Assiniboiné Indians, returned to the Saskatchewan River, wintering over on the prairies of present-day Alberta and possibly spotting the Rocky Mountains before returning to the York Factory the following year. Again, the Hudson's Bay Company made no attempt to follow up on his achievement, particularly since the Blackfeet Indians whom Henday met on the prairies proved completely uninterested in making the long trek back to the York Factory to trade their furs.

FUR TRADE TO 1760



FUR TRADE AFTER 1760



After another long stretch of inactivity, Hudson's Bay Company trader Samuel Hearne set out across the unexplored "Barren Lands" northwest of Hudson Bay and, traveling up the Coppermine River through the tundra region of northern Canada, reached the Arctic Ocean on July 17, 1771. Hearne's skills as a surveyor were limited; he thought he was about 200 miles farther north than was actually the case. But his achievement was significant; he was the first European to stand on the northern shore of the North American continent. He returned to Churchill Fort in June 1772, after enduring great hardships: "I left the print of my feet in blood almost at every step I took," he wrote. Though he brought back a four-pound chunk of copper from the Coppermine River to show his employers, the route he followed proved of no use for the fur trade, and the company sent no expeditions to follow up on his discovery.

It was only in the last quarter of the 18th century that the Hudson's Bay Company finally realized it had to move westward or risk financial ruin. Thanks to the British victory in the French and Indian War in 1763, New France no longer existed in Canada. The British flag, known as the Union Jack, flew over Montreal. Ambitious British merchants (many of them originally from Scotland) were moving into that city and revitalizing the fur trade that had been disrupted by the war. Montreal fur companies, soon to unite as the North West Company, were expanding their chain of trading posts westward and coming to monopolize fur trading with western Indians. Ironically, Britain's victory in the war worked to undermine the economic prospects of the principal British fur company in Canada.

No longer could the Hudson's Bay Company sit complacently and wait for furs to be brought to its long-established trading posts.

In 1774 Samuel Hearne was sent to establish Cumberland House, the company's first trading post west of the shores of Hudson Bay, on the northern shore of Lake Winnipeg. In 1800 Peter Fidler, the company's chief surveyor and mapmaker, established Chesterfield House at the confluence of the Red Deer River and the South Saskatchewan River. Although Fidler never traveled across the prairies to the Rockies, he nonetheless gathered a great deal of useful geographical information about the plains and the mountains from the Indians who came to trade at Chesterfield House. Later Fidler surveyed the Athabasca region, the Churchill River, and the Red River region.

THE NORTH WEST COMPANY AND WESTERN EXPLORATION

The achievements of Hudson's Bay Company explorers like Kelsey, Henday, Hearne, and Fidler were impressive even if sporadic. In the late 18th and early 19th century it was explorers associated with North West Company, the Hudson's Bay Company's principal rival, who set the pace in western exploration. First and foremost among the North West Company's list of distinguished explorers was Alexander Mackenzie, who achieved the distinction of being the first European, and quite possibly the first human being, to cross the North American continent north of Mexico. Born in 1764, near Dunkeld, Scotland, Mackenzie came to New York with his parents as a child in 1774, and moved to Montreal in 1778. He started working in the fur trade as a clerk in a Montreal warehouse the following year. In 1785 he traveled west as a fur trader for Gregory McLeod and Company, a fur company that was soon to merge into the North West Company.

The North West Company's dominance of the Canadian fur trade in the early 19th century was based largely on its control of trading in the Athabasca region. Lake Athabasca is Canada's fourth-largest lake, located in present-day Alberta and Saskatchewan. The lake was of pivotal importance in the exploitation of western Canada's fur regions. Not only were the shores of the Athabasca rich in fur-bearing animals, but the lake gave traders and explorers access to a new set of river systems reaching far into the western and northern interior of the continent. These include the Slave River, flowing north to Great Slave Lake in the present-day Northwest Territories, and the Peace River, flowing west toward the Rockies.

The first European to reach the shores of Lake Athabasca was a fur trader named Peter Pond. Pond was born in Connecticut and



Alexander Mackenzie attempted to reach the Pacific Ocean several times before succeeding in 1793.
(National Archives of Canada)

moved to Canada after serving in the American militia in the French and Indian War. From stories he heard from the Indians with whom he traded, Pond optimistically concluded that the river flowing out of Great Slave Lake would provide a quick and easy water route to the Pacific. Pond confidently described Great Slave Lake as lying 700 or so miles farther west than its actual position, and he also assumed that the Rocky Mountains ended well south of the latitude of the lake. He was unable to interest either U.S. or British authorities in sponsoring an expedition to test his theory that this was indeed the long-sought Northwest Passage. But Alexander Mackenzie persuaded the North West Company to give Pond's river route a try. In June 1789 Mackenzie set off from Fort Chipewyn on the southern shore of Lake Athabasca, up the Slave River to the Great Slave Lake, and from there setting out into unknown territory on the river that would bear his name, the Mackenzie. Unfortunately, he discovered that Pond had been misinformed or misunderstood what he had been told by the Indians. The Mackenzie River flows north rather than west, and when Alexander Mackenzie reached its mouth in mid-July 1789 he found himself at a dead end, on the edge of the Arctic Ocean instead of the Pacific.

In May 1793 Mackenzie set off again into unexplored territory, this time proceeding on the Peace River, which flowed west from Lake Athabasca. The Peace River took him and nine companions to the eastern slopes of the Rockies. They found a low pass across the mountains, subsequently known as Peace River Pass, and crossed over. On the western side of the Rockies they took to water again, heading west on a river they knew as Tacouche Tesse, which would later be called the Fraser, and which Mackenzie optimistically believed to be the Columbia. When the river proved too chal-



How Alexander Mackenzie Inspired the Lewis and Clark Expedition

In 1801 a London publisher brought out the first edition of Alexander Mackenzie's *Voyages from Montreal . . . through the Continent of North America, to the Frozen and Pacific Oceans*. Historian Donald Jackson has described this account of Mackenzie's 1789 and 1793 expeditions through western Canada as "the most important geographical work in [Thomas] Jefferson's possession." Jefferson had known of Mackenzie's success in reaching the Pacific since at least 1797, and he eagerly read Mackenzie's book when he received a copy of it in 1802.

In his book Mackenzie described the pass that led him across the Rockies as "a beaten path leading over a low ridge of land," a mere 3,000 feet in elevation. From there it had taken him only a month to reach the Pacific Ocean. Mackenzie's description of his route reinforced Jefferson's belief that the Rockies were basically similar to the familiar Allegheny Mountains of the East, low in height, and within easy striking distance of the ocean.

Mackenzie believed he had found a passage to India, and that the country that commanded the Columbia River would control the riches of the western fur trade. "By opening this intercourse between the Atlantic and Pacific Oceans," Mackenzie suggested, "and forming regular establishments throughout the interior, and at both extremes, as well as along the coasts and islands, the entire command of the fur trade of North America might be obtained . . . To this may be added the fishing in both seas, and the markets of the four quarters of the globe."

Voyages from Montreal was a wake-up call to Jefferson. If Americans did not act quickly to find their own Northwest Passage, they might well find themselves forever shut out of the Pacific Northwest. His decision to order Meriwether Lewis to begin planning an expedition to the Pacific was directly inspired by Alexander Mackenzie's achievement. When they set out up the Missouri in 1804, Lewis and Clark carried with them the Arrowsmith map that showed Mackenzie's discoveries.

and celestial navigation, which gave him a degree of scientific training distinguishing him from most of his fellow fur traders. He was also set apart by his dislike of the violent bravado so common on the Canadian frontier; he was known in particular for his fair and peaceful treatment of the Indians. After his recovery, Thompson was sent by the Hudson's Bay Company to map northern Mani-

toba and Saskatchewan, including the upper course of the North Saskatchewan River. But, typically short-sighted, the Hudson's Bay Company kept saddling Thompson with mundane commercial tasks. Dissatisfied with the company's neglect of his special aptitude for scientific exploration, Thompson quit in 1797 and went to work for the North West Company.

Thompson's first assignment from his new employer was to survey the trade route from Lake Superior to Lake Winnipeg. That same year he traveled southwestward on the Assiniboine River, crossing the plains to the Missouri River and returning to Canada via the upper reaches of the Mississippi River. Thompson's reports from his travels were a model of scientific investigation. He not only accurately mapped the location of trading posts and Indian villages (including the

Mandan-Hidatsa villages on the Missouri, where Lewis and Clark would stay seven years later), but offered a survey of the geography and vegetation of the region through which he passed. (Meriwether Lewis studied Thompson's 1798 sketch of the Great Bend of the Missouri River before setting out on his expedition up the Missouri.) In 1799 Thompson headed farther west, exploring the route between the Churchill River and Lake Athabasca. In 1800 he journeyed to Rocky



In this drawing, David Thompson crosses the Athabasca Pass in 1811. It would become the main fur trade route over the Rocky Mountains. (*National Archives of Canada*)

Mountain House, the North West Company's trading outpost along the North Saskatchewan River. He set out to the Rockies, hoping to find an easily accessible pass, but for the moment he was unsuccessful.

In fall 1806 Thompson was back at Rocky Mountain House on the Saskatchewan River. That fall he sent Jaco Finlay to explore the area of the Rockies later to become Banff National Park. In spring 1807 he set out himself for the Rockies. On June 25, 1807, he found a pass

through the mountains that would later be named Howse Pass, about 80 miles northeast of present-day Banff. Five days later, now on the west side of the Rockies, Thompson stumbled upon the Columbia River, at a site near present-day Golden, British Columbia. He did not yet realize the momentous nature of his discovery. He named the river the Kootenay, and it would be another three years before he came to understand that this was indeed the water route he sought to the Pacific.



David Thompson explored the area near present-day Lake Louise and Banff National Park in Canada. In the background of this 1903 photograph of Lake Louise are the glaciers of nearby Mount Victoria. (*National Archives of Canada*)



Working for the North West Company, Simon Fraser searched for the elusive Northwest Passage in 1805. (National Archives of Canada)

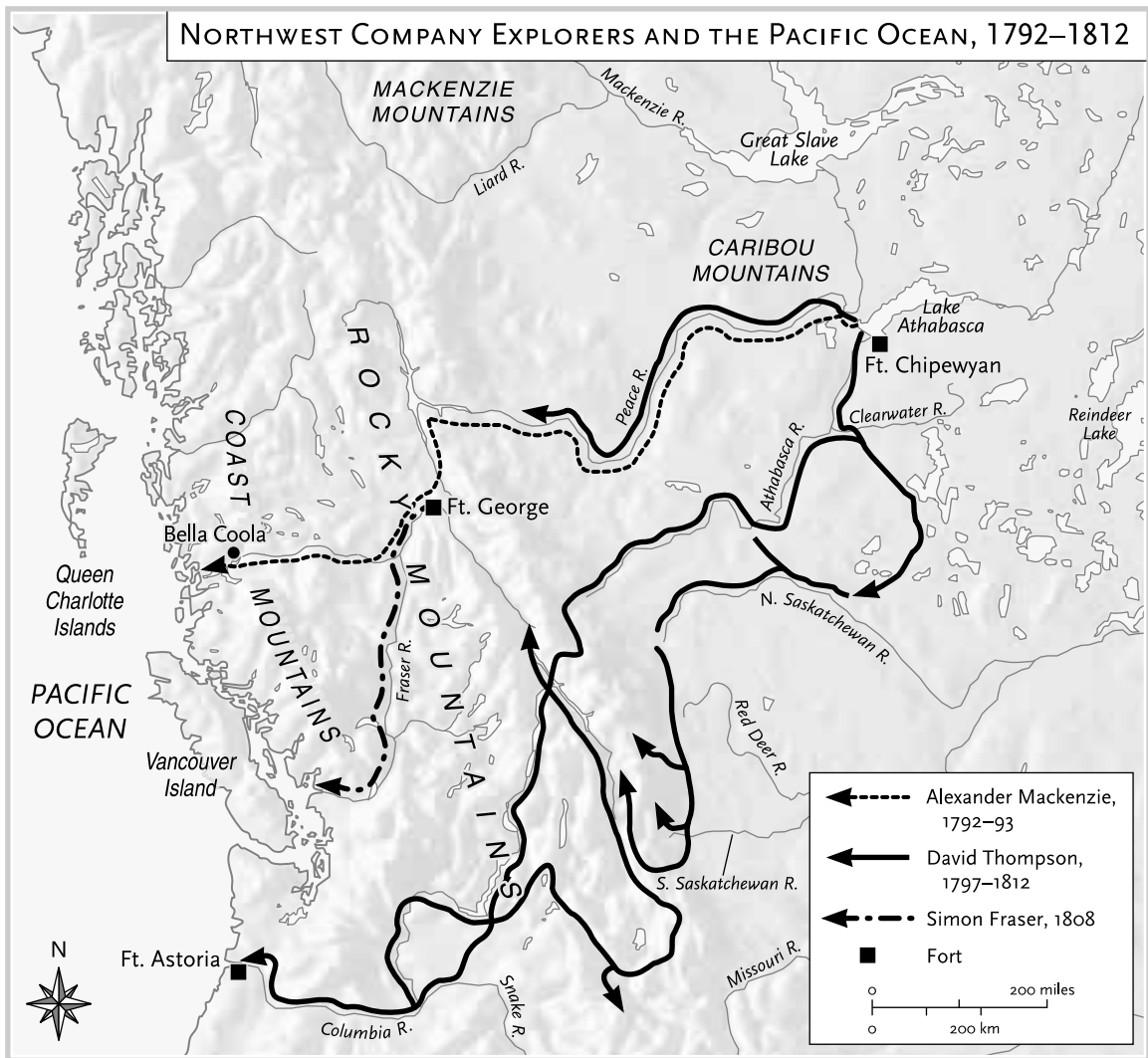
In the meantime, Thompson's North West Company colleague Simon Fraser was also engaged in the search for the Northwest Passage. Like Thompson, Simon Fraser was an immigrant to Canada. He was born in Hoosick Township, New York, in the momentous year of 1776. Fraser's father, a Loyalist (he fought on the side of the British), was taken prisoner by the Continental army at the Battle of Bennington the following year and died in prison in 1779. Fraser's mother moved to Canada at the end of the American Revolution. In 1792, at age 16, Fraser went to work for the North West Company as an apprentice clerk, and became a partner in 1801.

In 1805 Fraser was put in charge of North West Company operations west of the Rockies. He decided to improve upon the route that Alexander Mackenzie had taken to the Pacific in the 1790s. On May 28, 1808, Fraser set out with 23 men in four canoes. Their point of origin was Fort George, the North West Company's newly established trading post (present-day Prince George in British Columbia). Fraser mistakenly believed that the river he was setting out on was the Columbia, and that it would lead him, as it had Lewis and Clark three years earlier, to the Pacific.

The lead canoe of Fraser's expedition was called the *Perseverance*, and that was a quality he and his followers needed. Warned by the Indians of impenetrable rapids downriver (a warning that Alexander Mackenzie had heeded in 1793 when he decided to head off overland), Fraser nevertheless proceeded on. "Our situation was really dangerous," Fraser recorded in his journal on June 5 to describe a typically perilous day, "being constantly between steep and high banks where there was no possibility of stopping the canoe." After many trials, Fraser and his party reached the river's mouth on July 2, 1808, but far to the north of where they knew the Columbia emptied into the Pacific. "The latitude is 49 [degrees] nearly, while that of the entrance of the Columbia is 46 [degrees] 20," Fraser recorded sadly in his journal. "This River, therefore, is not the Columbia . . ." Nor, given its difficulties, would the river that would be named for Fraser prove a practical trade route to the Pacific.

THOMPSON TRAVELS THE COLUMBIA

In 1809 David Thompson opened three new trading posts for the North West Company:



Kullyspell House, in present-day Idaho; Salish House, in present-day Montana; and Spokane House, near present-day Spokane, Washington. Thompson was acting in the interests of his sovereign as well as his employer, and claimed the region stretching from present-day northern Idaho to present-day Washington State in the name of Great Britain. On another of his Rocky Mountain

crossings, in January 1811 he found an important new route across the Rockies, Athabasca Pass.

Thanks in part to Simon Fraser's perilous and otherwise fruitless trip to the Pacific, Thompson finally realized that the river he had discovered and named the Kootenay was actually the Columbia. Learning of John Jacob Astor's plans to found a trading post at the

mouth of the Columbia, the North West Company dispatched Thompson down the river in a race to claim the river's mouth for its own trading post. Thompson set out at the end of June 1811 from a point near present-day Kettle Falls, Washington, heading downriver in a single canoe with three *voyageurs*. On July 9 he stood at the confluence of the Snake and Columbia Rivers, where he nailed a note to a tree boldly declaring: "Know hereby that this country is claimed by Great Britain as part of its territories, and that the North West Company of Merchants from Canada, finding the factory for this people inconvenient for them, do hereby intend to erect a factory in this place for the commerce of the country around."

Thompson would have hammered a similar note on a tree when he reached the Columbia's mouth on July 14, 1811. He was the first European to traverse the river's length from its headwaters to its outlet and could take justifiable pride in the achievement. But as a trading venture, his journey proved a failure. Astor's men had arrived at the mouth of the Columbia first. Thompson was not impressed by the U.S. outpost. "The quality of their goods for trade," he would write dismissively, was "very low, but good enough for the beggarly natives about them." By the time Thompson returned to North West Company headquarters at Fort William, the War of 1812 had broken out, and Fort Astoria would soon fall into the hands of the North West Company after all.

In years that followed, Thompson continued his work as surveyor and mapmaker. He completed a 10-foot-by-six-foot master map of the "North West Territory of the Province of Canada" in 1814. All told, Thompson had covered more than 50,000 miles in 14 years of active exploration on behalf of the North West Company.

THE MERGER OF THE NORTH WEST COMPANY AND HUDSON'S BAY COMPANY

The rivalry between U.S. and Canadian fur traders was bitter and contracted, but it was not nearly as bloody as that between the North West and Hudson's Bay companies in Canada. Their commercial feud grew so heated that it turned into open warfare along the Red and Assiniboine Rivers. The British government finally stepped in to pressure the companies to set aside their differences, and in 1821 they merged, retaining the venerable name Hudson's Bay Company. An act of the British Parliament extended the merged company's monopoly over the fur trade in Canada all the way to the shores of the Pacific.

Both the British government and the Hudson's Bay Company hoped that the eventual western boundaries of Canada would reach far below the 49th parallel (the dividing line between the United States and Canada between the Great Lakes and the Rockies) to take in some or all of the disputed Oregon Territory (the present-day states of Washington and Oregon). In a treaty signed in 1818 Britain and the United States agreed to share control of the territory for 10 years, and the compromise was extended by a new agreement in 1827. But just as John Jacob Astor's men had beaten David Thompson to the mouth of the Columbia in 1811, so U.S. settlers beat their Canadian counterparts to the Oregon territory in the decades that followed. By 1844 U.S. presidential candidate James K. Polk raised the cry "Fifty-four forty or fight" as a campaign slogan, meaning that he hoped that the Oregon Territory well up into the future Canadian province of British Columbia would become part of the United States. As president of the

United States in 1846 he settled for less; the United States secured control of the future states of Oregon and Washington, while accepting a northern border to its national territory that stretched the rest of the way from the Rockies to the Pacific along the 49th rather than the 54th parallel.

The Hudson's Bay Company, knowing it was about to lose its trading posts along the lower Columbia River, had been busy setting up trading posts farther north along the Pacific coast, territory that until then had been visited only sporadically by ship-borne fur traders. The northern Pacific department of the Hudson's Bay Company (known as the New Caledonia Department) established its headquarters at Fort Victoria on the southern tip of Vancouver Island in 1843. Vancouver became a British Crown colony in 1849, to forestall further northern expansion of the United States after the Oregon Territory passed to U.S. control.

Meanwhile, small bands of Hudson's Bay Company fur traders mapped the wilderness of the Canadian northwest, river by river, lake by lake, mountain range by mountain range, at considerable risk to their lives and those of the men who accompanied them. Their numbers included hearty woodsmen like Samuel Black, who explored the Finlay River country in 1824; John McLeod, who explored the upper Liard River in 1831; and most remarkable of them all, Robert Campbell, who explored the Dease River in 1838, the Frances River in 1840, and the upper Yukon River in 1851.

CANADIAN NATIONALISM AND WESTERN EXPLORATION

The pursuit of the beaver, and the profits derived from trade in its fur, remained central

to Canada's western exploration well into the mid-19th century. At the same time and increasingly, Canadian nationalism also emerged as a motive for further exploration. In the 19th century, for the first time in



Canada's history, settlers took their place alongside fur traders and missionaries on the westward-moving frontier.

At the start of the 19th century, Canada was less a nation than a hodgepodge of

loosely linked colonial possessions. The Canada Act of 1791, passed by British Parliament, divided Quebec in two. One half now consisted of Lower Canada, the region of majority French population along the lower



Completed in 1885 after a tumultuous construction period, the Canadian Pacific Railway connected the eastern and western coasts of Canada. Shown in an early 20th-century photograph, one of the most impressive Canadian Pacific Railway hotels is located in Banff, Alberta. (*National Archives of Canada*)

St. Lawrence River; the other half, Upper Canada, was the region of majority British population, along the upper St. Lawrence River and the Great Lakes. Both Lower and Upper Canada had their own provincial governments (including a legislative council appointed for life and a legislative assembly elected by the citizens), but both remained subordinate to the British Crown. To complicate matters, there were also crown colonies such as Newfoundland, royal provinces such as Nova Scotia and New Brunswick, plus the huge swath of Rupert's Land administered by the Hudson's Bay Company.

If anything can be said to have pushed Canada toward true national identity, it was the War of 1812, perceived by most Canadians as a war of aggression launched by the United States. The next half-century saw a series of steps that created a unified nation. In 1840 the Act of Union passed by Parliament joined the provinces of Upper and Lower Canada under a single central government. And, in 1867, the British North America Act created the Dominion of Canada out of the provinces of New Brunswick, Nova Scotia, Ontario, and Quebec, with a federal government consisting of an elected House of Commons and an appointed Senate to make laws for the country as a whole. Canada now enjoyed self-rule in domestic affairs (it would not gain full independence in foreign affairs until 1931). The Parliament of the new Dominion of Canada met for the first time in November 1867, and selected John Alexander Macdonald as prime minister.

While steps were being taken to politically unify the country, government-sponsored explorers filled in some of the remaining blank spaces on the map of the Canadian interior. John Palliser, an Irish-born British army captain and member of the Royal Geographical Society, explored the Canadian plains

between the North Saskatchewan River and the U.S.-Canadian border between 1857 and 1859. Traveling back and forth across the Rockies by six separate passes, the Palliser Expedition produced the first reliable maps of the mountains in present-day Alberta. In 1858–59 another expedition, led by Henry Youle Hind, a professor of chemistry at Trinity College in Toronto, surveyed the region between Lake Superior and the Red River, before moving on to the region between the Red River and the South Saskatchewan River. Both Palliser and Hind concluded that the lands immediately to the north of the U.S.-Canada border were the Canadian equivalent of the “Great American Desert” that early U.S. explorers had reported finding on the Great Plains of the United States. They were more optimistic for the possibilities of agricultural development along a “fertile belt” that stretched alongside the rivers of the central Canadian prairies through the present-day provinces of Manitoba, Saskatchewan, and Alberta.

Prime Minister John A. Macdonald, who would serve in office as prime minister almost continuously until his death in 1891, was determined to foster Canada's westward expansion. Under his leadership, the provinces of Manitoba and British Columbia joined the Canadian Confederation (as well as Prince Edward Island on the Atlantic coast). He also obtained the transfer of the territory from the Hudson's Bay Company to the Confederation of the Northwest Territories (out of which were carved the future provinces of Alberta, Saskatchewan, Yukon, and—most recently, in 1999—Nunavut). To tie these new Canadian possessions together, Macdonald encouraged the building of the Canadian Pacific Railway, which was under construction from 1882 and 1885. He also fostered further scientific exploration. In the early 1870s government-

sponsored surveyors set out to establish a definitive map of Canada's border with the United States, and to survey the lands under federal administration in the Northwest Territories with the hope of attracting settlers. A second, closer look at the southern prairie region convinced government surveyors that Palliser and Hind had been too quick to write off the region as a desert. The official Geological Survey of Canada conducted systematic mapping and analysis of Canada's western geology in the 1870s and 1880s.

All these efforts would have counted for little, if it had not been for the choice made by tens of thousands of Canadians to move west. Until the middle of the 19th century, the num-

ber of whites in the Canadian West who did not make their livelihood from the fur trade was minuscule. That began to change with the discovery of gold in the Queen Charlotte Islands in 1852 and along the lower and middle Fraser River in 1857; and, most famously, in the Klondike and Yukon regions in 1896–98. With the construction of the Canadian Pacific Railroad, wheat farmers and cattle ranchers began to move out onto the prairies. The arrival of a sizable number of Canadian settlers in the prairie provinces and along the Pacific coast meant that Canada had won its race with the United States; like its neighbor to the south, it, too, would succeed in reaching “from sea to shining sea.”

5

THE U.S. ARMY CORPS OF TOPOGRAPHICAL ENGINEERS



Meriwether Lewis and William Clark were the first of a long line of distinguished 19th-century military explorers. Between the War of 1812 and the Civil War, U.S. Army Topographical Engineers, or “topogs,” as they were sometimes called, were in the vanguard of the scientific exploration of the American West.

In 1813, the second year of the War of 1812, Congress authorized the creation of a unit of topographical engineers in the U.S. Army. Topography is the study of landscape features, both natural and human-made. Topographical engineers apply that study to solving practical problems, like planning where to build roads or railroads. Military topographical engineers address the questions that confront armies in the field. In authorizing the creation of the topographical engineers as a military unit, Congress specified that they were, among other responsibilities, “to make such surveys . . . as the commanding generals shall direct; to make plans of all military positions which the army may occupy and of their

respective vicinities, indicating the various roads, rivers, creeks, ravines, hills, woods, and villages to be found therein; [and] to accompany all reconnoitering parties sent out to obtain intelligence of the movements of the enemy or his positions.”

When peace with Britain came in 1815, U.S. military forces were drastically reduced in size. The U.S. Army’s topographical engineers were thanked for their wartime service and given honorable discharges. But the military soon found it had further need of the services of well-trained topographical engineers as it turned its attention to guarding the nation’s expanding western frontiers, as well as its vulnerable coastlines. So in 1816 Congress authorized the creation of the Topographical Engineers Bureau, under the command of the Office of Chief Engineer of the U.S. Army. The topographical engineers were few in number, at first limited to a mere 10 officers. Few as they were, the engineers of the Topographical Bureau—reorganized and renamed in 1838 as the Corps of Topographical Engineers—

played a leading role in exploring and mapping the western United States.

ORIGINS OF THE LONG EXPEDITION

One of the most famous of the explorers who came from the ranks of the Topographical Engineers was Stephen Harriman Long. Born in Hopkinton, New Hampshire, in 1784, Long attended newly established Dartmouth College. He graduated in 1809 and found a job as a schoolteacher. With the coming of war in 1812, Long enlisted in the U.S. Army as a second lieutenant in the Corps of Engineers. At the end of the war he decided to stay on in the military, and taught mathematics at the U.S. Military Academy at West Point. He trans-



Stephen Harriman Long explored the western frontier as a topographical engineer for the U.S. Army. (Library of Congress, Prints and Photographs Division [LC-USZ62-121101])

ferred to the Topographical Engineers at the end of April 1816, shortly after Congress authorized the unit's creation. Long carried out some of the unit's first frontier assignments as he explored the Illinois, Fox, Wisconsin, upper Mississippi, and Minnesota Rivers in a search for suitable sites for building forts.

In 1819 Major Long was given a new assignment. Colonel Henry W. Atkinson was leading 1,000 U.S. soldiers up the Missouri River in a show of force designed to impress both the Indians who lived along the river and the British in Canada of the U.S. government's resolve to establish full control over the upper Louisiana Territory. Atkinson's command, known as the Yellowstone Expedition, was carried up the Missouri in five steamboats, the first time that a large number of troops had been moved into potentially hostile territory by means of this new technological wonder. They hoped to reach the mouth of the Yellowstone before winter.

In authorizing the Yellowstone Expedition, the War Department had decided it would take the opportunity to send along a contingent of trained scientific observers. On May 5, 1819, almost 15 years to the day after the start of the Lewis and Clark Expedition, Major Long and a detachment of topographical engineers, scientists, and soldiers set off down the Ohio River from Pittsburgh on the steamboat *Western Explorer* to catch up with the rest of Atkinson's force on the Missouri.

Their trip received considerable publicity, for the U.S. public was eager to learn more about the western wonderland described in the recently published Lewis and Clark journals. A dispatch from Pittsburgh printed in a Washington, D.C., newspaper predicted that Long's party would "remedy the defects of the plan so boldly executed by Lewis and Clark," by advancing the cause of "universal science." Lewis and Clark had proven to be singularly

gifted observers of the natural world, but when their expedition set out in 1804, Lewis possessed only a smattering of scientific education, and Clark none at all. In contrast, Long's expedition included three trained military topographers (Long himself plus Lieutenant James Graham and West Point cadet William Swift). It also employed the services of three civilian scientists: botanist William Baldwin, zoologist Thomas Say, and amateur geologist Augustus Jessup. (Baldwin would leave the expedition in mid-July due to ill health). Two artists accompanied Long to bring back a visual record of the landscape, animals, plants, and Native Americans the expedition would encounter en route: the English-born Samuel Seymour and Titian Ramsay Peale, who was the son of the famed Philadelphia artist-naturalist museum proprietor Charles Willson Peale.

The reporters who covered the departure of the Long Expedition left a vivid description of their steamboat, the *Western Explorer*, which presented quite a spectacle: "The bow of this vessel," a St. Louis newspaper reported, "exhibits the form of a huge serpent, black and scaly, rising out of the water from under the boat, his head as high as the deck . . ." From the serpent's open mouth the smoke of the steamboat's engines belched forth—a fearful sight, the explorers hoped, to any potentially hostile Indians they might encounter en route. And if the belching smoke was not enough to scare off potential attackers, the steamboat was equipped with a brass cannon and four brass howitzers, along with a plentiful supply of muskets, rifles, and cutlasses.

The early part of the trip down the Ohio and up the Mississippi was less a voyage of discovery than a measure of how much had changed in the decade and a half since Lewis and Clark had followed the same path. St. Louis had grown dramatically after its transfer

to the United States in 1804. Major Long happily recorded his impressions of the city's changing character: "As the town advances in importance and magnitude, the manners and customs of the people of the United States, are taking the place of those of the French and the Spaniards, whose numbers are proportionately diminishing." And as Long and his men headed up the lower Missouri, they found that many U.S. settlers had built farms along the riversides.

In September Long's detachment caught up with the main force under Colonel Atkinson. The Yellowstone Expedition had not been going well. Unlike the *Western Explorer*, the steamboats used by Atkinson's troops were poorly designed for the Missouri's shallow waters and were soon abandoned. Instead of riding at their ease upriver, Atkinson's soldiers now had to march along the riverside. By the end of September 1819, the weary soldiers of the Yellowstone Expedition were nowhere near the Yellowstone, having gone only as far as Old Council Bluffs in present-day Nebraska. There they halted and built their winter encampment. Long's detachment set up their own camp nearby. Over the next few months, Atkinson lost a tenth of his force to disease and exposure. Meanwhile Major Long had returned to Washington to report to Secretary of War James C. Calhoun on the expedition's progress. While he was there, Calhoun decided to call off the Yellowstone Expedition. But the War Department thought it could salvage something from the fiasco by giving Long's scientific unit a new assignment. Instead of following the Missouri to the mouth of the Yellowstone, as originally planned, Long was now ordered to take his party west along the Platte River instead, find its source in the Rocky Mountains, and return east by way of the Arkansas and Red Rivers. Back when Thomas Jefferson was president, his attempts

to send exploring parties out along the Red River had ended in confrontation with Spanish authorities. According to a treaty the United States negotiated with Spain in 1819, the Red and the Arkansas were now to be recognized by both countries as the official dividing line between the heretofore vaguely defined boundaries of the United States's Louisiana Territory and Spanish-owned lands to the south.

Long rejoined his men at Council Bluffs on May 27, 1820, bearing their new orders. He was accompanied by Captain J. R. Bell as his second in command, and Dr. Edwin James, who replaced the departed William Baldwin as expedition botanist (James would later author the two-volume report of the expedition). On June 6 Long and 19 men set out on horseback overland. With only a month's supply of food carried by a few packhorses and mules, they were poorly equipped for the challenges to come. When they came to an Indian encampment known as the Grand Pawnee Village along the Wolf River, the Pawnee chief Long Hair paid a backhanded compliment to their bravery, if not their foresight: "You must have long hearts," he told them, "to undertake such a journey with so weak a force; hearts that would reach from the earth to the heavens."

TO THE ROCKIES AND BACK

Just before sunset on June 14, Long's party reached the banks of the Platte River. The broad, shallow waters of the Platte have been described, with slight exaggeration, as 1,000 miles long and only six inches deep; the local Otoe Indian tribe called the Platte "Nebraska," which means "flat water." Long and his men followed the river westward. On June 22 they came to the fork in the river: the North Platte leads toward present-day Wyoming, the South

Platte toward present-day Colorado. They took the southern fork. On June 30, as James's account of the expedition recorded, "we left the encampment at our accustomed early hour, and at 8 o'clock were cheered by a distant view of the Rocky Mountains." By July 5 they had reached the site of present-day Denver, Colorado. Along the Front Range of the Rockies they spied a distinctive high peak that they named Long's Peak.

Long's Peak, at 14,255 feet the highest summit in the Front Range of the Rockies, remained unclimbed for the moment, but not so Pike's Peak to the south. With two other men from the expedition, Dr. James climbed to the summit of the mountain named after Zebulon Pike on July 14. Pike's Peak reaches a height of 14,110 feet above sea level; when James and his companions climbed it, they had accomplished what was to that date the highest recorded ascent of an American mountain north of Mexico. "From the summit of the Peak," James recorded, "the view towards the north, west, and southwest, is diversified with innumerable mountains, all white with snow . . ." To the east they could see "the great plain, rising as it receded, until, in the distance, it appeared to mingle with the sky." He was also struck by the deep blue color of the predominant species of alpine flower on the mountainside: the mountain columbine, *Aquilegia coerulea*. James's descriptions of what he saw that day (including horned toads and house finches) represented the first scientific record of the terrain above timberline and the flora and fauna of a 14,000-foot mountain in North America. The explorers renamed the mountain James Peak, but that name did not stick; it soon reverted to the original Pike's Peak.

With James having glimpsed the headwaters of the Platte high in the Rockies, Long considered his principal assignment from the



Visible in this early 20th-century photograph with the Rocky Mountains in the distance, Long's Peak is named after Stephen Long. (*Library of Congress, Prints and Photographs Division [LC-USZ62-100924]*)

War Department completed. He did not lead his men into the mountains. Instead they headed south, skirting the Front Range until they reached the upper Arkansas River. At that point half the expedition headed east along the river under the command of Captain Bell. (Bell and some of his men returned safely to Fort Smith in Arkansas, but along the way three of the soldiers under his command deserted, carrying with them many of the

expedition's scientific records, which were never recovered.)

Long and the others continued south, searching for the Red River. They thought they had reached it when on August 4 they came upon a river flowing out of the Rockies. They followed it east on a route that took them into the Texas Panhandle, the first Americans ever to travel through that region. But the river they were following was actually the Cana-

dian, not the Red, which they realized to their disappointment when they found that, unlike the Red, it wound up emptying into the Arkansas River. On September 13, 1820, Long and his men reached Fort Smith in Arkansas, where they rejoined their comrades who had followed the Arkansas east from the Rockies.

“THE GREAT AMERICAN DESERT”

Although the Long Expedition suffered from poor planning and geographical misjudgments, it made some significant contributions to popular and scientific knowledge. The two expedition artists, Seymour and Peale, produced hundreds of valuable paintings and drawings. Seymour’s paintings provided Americans with their first accurate depictions of the Rocky Mountain and Plains landscapes. Peale’s collected works depicted everything from prairie dogs to mounted Indian buffalo hunters; his depictions of Plains Indian tipis proved enormously influential in shaping the popular American image of western Indian life. Dr. James’s botanical collection, especially of alpine plants, also represented a genuine contribution to scientific knowledge of the West.

But the most lasting effect of the Long Expedition was to cement the popular belief that the region lying between the 100th meridian and the Rocky Mountains was a wasteland unsuited for agricultural development—in Long’s influential phrase, the “Great American Desert.” In the official history, the *Account of an Expedition from Pittsburgh to the Rocky Mountains*. Long described the area through which he and his men had passed as “unfit for cultivation and of course uninhabitable by a people depending upon agriculture.” The “scarcity of wood and water,” he predicted, would “prove an insuperable obstacle

in the way of settling the country.” The misnomer “Great American Desert” soon began appearing on maps of the region, and mapmakers used the same brown coloration for the region on their maps that they applied to other well-known deserts elsewhere, like the Sahara in Africa.

THE TOPOGRAPHICAL ENGINEERS AND MANIFEST DESTINY

In the decade following the Long Expedition, the army’s “topogs” did little exploring, but contributed greatly to the United States’s economic development. The federal government encouraged internal improvements in the 1820s and 1830s, including the building of canals, railroads, harbors, lighthouses, and improved road systems, and frequently lent the assistance of military topographical engineers to such ventures. Major Long was assigned to survey the route along which the Baltimore and Ohio (B & O) Railroad laid its tracks. The topogs were also assigned to military campaigns, such as the conflict with the Seminole Indians in Florida in the 1830s.

As an outgrowth of the mounting demands on the topographical engineers’ time, Congress authorized the unit’s expansion and reorganization in 1838. They were now designated an army corps, and their number increased to 36 officers under the command of Colonel John James Abert. They were an elite group, nearly all of them trained at the U.S. Military Academy at West Point. The reorganization of the Topographical Engineers coincided with the renewed belief among powerful political leaders in Washington that the federal government should use its resources to encourage the exploration, settlement, and development of the western United

States, and should seek whenever possible to expand the borders of the United States at the expense of other powers on the North American continent.

One of the leading spokesmen for this view was Senator Thomas Hart Benton of Missouri. Starting in the 1820s, Senator Benton called for the aggressive use of U.S. troops along the Missouri and Columbia Rivers to protect the U.S. fur trade and deter foreign traders. As the fur trade declined in economic importance, he pushed for policies favoring agricultural development of the West, including the sale of public lands at bargain prices to settlers. And he favored the construction by the government of roads and canals to further western economic development.

Benton did not coin the phrase, but he was an early and eloquent exponent of the concept of “Manifest Destiny.” The word *manifest* means “obvious, plain, or readily perceived,” and what was believed to be manifest in U.S. destiny was that it was God’s will that the United States spread its power across the North American continent, and that it become a power in the Pacific region as well as in the Atlantic. The demand arose in Congress and elsewhere that the United States secure control of the Oregon Territory—and perhaps also California, Texas, and the regions in between.

In line with this expansive view of the federal government’s responsibility for spreading U.S. influence and power, in the mid-1830s Congress authorized the president to send a “surveying and exploring expedition to the Pacific Ocean and the South Seas.” On August 15, 1838, Lieutenant Charles Wilkes of the U.S. Navy set sail from Hampton Roads, Virginia, in command of a squadron of six ships, carrying more than 400 officers and sailors, and a nine-man contingent of scientists and artists, including Long Expedition veteran Titian

Ramsey Peale. The U.S. South Seas Surveying and Exploring Expedition spent the next four years exploring the Pacific, from the coast of Antarctica to Australia and New Zealand, and along the Pacific Northwest coast. Lieutenant Wilkes sent several parties on inland expeditions through the Oregon Territory: Titian Ramsey Peale was in a party that traveled south through Oregon’s Willamette Valley to the Sacramento Valley in California.

JOHN C. FRÉMONT

The same year that Lieutenant Wilkes set off of the Pacific, the army’s topographical engineers returned to the exploration of the West. A new generation of military explorers was about to make its mark on the maps of the West, and the most celebrated of their number was a young lieutenant in the U.S. army, John Charles Frémont.

Frémont was born in Savannah, Georgia, on January 21, 1813. He was the son of a French immigrant father and a socially prominent Virginian mother who never married. Frémont was sensitive to the disgrace inherited by children born in such circumstances in 19th-century America, and the desire to erase the stain on his origins fueled his immense personal ambition. His family moved frequently when he was young, and its finances were never better than uncertain. Still, Frémont gained a solid education, including two years of scientific study at the College of Charleston, in South Carolina.

By the time he was 17, Frémont was making his living as a teacher of mathematics in country schools in South Carolina. In 1833 he obtained a post as a civilian teacher of mathematics to midshipmen aboard the U.S. Navy ship *Natchez*, and in his first extended travels, sailed with the ship on an extended cruise off South America. Returning to the United States



John C. Frémont was an invaluable member of the Topographical Engineers Bureau. (*Library of Congress, Prints and Photographs Division [LC-USZ62-107503]*)

in 1836, he found employment as a surveyor for the U.S. Corps of Topographical Engineers for a railroad route between South Carolina and Ohio, followed by a stint surveying the boundaries of Cherokee Nation lands in western Georgia. Frémont would later write of this period, “I found the path I was ‘destined to walk.’ Through many of the years to come the occupation of my prime of life was to be among Indians and in waste [wild] places.”

In 1838, the year of the reorganization and expansion of the Corps of Topographical Engineers, Frémont was commissioned a second lieutenant in the U.S. Army, assigned to the Corps of Topographical Engineers. Frémont was dispatched on an expedition to explore the prairie region of the upper Mississippi

Basin in present-day Minnesota, as assistant to French-born astronomer and explorer Joseph N. Nicollet. (Although Nicollet was a civilian, Colonel Abert of the Topographical Engineers greatly admired his skill as a cartographer, and gave him command of the newly reorganized corps’s first significant exploring party.) It was a fortunate assignment for Frémont, for Nicollet had a lot to teach the young officer about geology, botany, and zoology, as well as the practical skills necessary for managing a scientific expedition in the wilderness. “I could not dwell too much upon [Nicollet’s] superb management of the expedition,” Frémont later wrote in his memoirs, “not an article lost or broken throughout our long



Senator Thomas Hart Benton supported the expedition in search of a passageway to Oregon undertaken by John C. Frémont and Kit Carson. (*Library of Congress, Prints and Photographs Division [LC-USZ62-71877]*)

journey, not a horse injured or stolen, a set of the most ungovernable men in the world reduced in less than a week to perfect order & obedience.” The following year he continued in Nicollet’s company on an expedition that took them deep into the present-day states of North Dakota and South Dakota.

Returning to Washington, D.C., Nicollet and Frémont were hard at work on a map detailing their survey of the northern plains

when they were visited by Senator Thomas Hart Benton. It was a fateful meeting for Frémont and for the Benton family. Frémont courted Benton’s beautiful 16-year-old daughter Jessie, and soon married her despite her parents’ misgivings. But if Senator Benton was not sure he wanted John C. Frémont as a son-in-law, he did see him as the kind of explorer who could help him realize his dream of extending the United States to the Pacific.



In this 1862 Mathew Brady photograph, nine topographical engineers for the U.S. Army pose at their headquarters, near Yorktown, Virginia, while on assignment during the Civil War. (*Library of Congress, Prints and Photographs Division [LC-USZ62-75798]*)



Believing it was the highest mountain in the Rockies, John C. Frémont climbed the jagged, snowy peak, later named Frémont Peak, seen in the distance in this undated image. (*Library of Congress, Prints and Photographs Division [LC-USZ62-21246]*)

With Benton's backing, Colonel Abert dispatched Frémont on an expedition up the Kansas and Platte Rivers in 1842 to survey the trail along the banks of those waterways. He set off on horseback in early June, following the Kansas River, in command of a motley crew of mountain men and voyageurs, including the soon-to-be-famous mountain man and scout Kit Carson and an able German immigrant surveyor and cartographer, Charles Preuss. Stretching his orders, something he was prone to do, and with the connivance of Senator Benton, Frémont led his expedition all the way to the Rockies, across

the South Pass, and explored the Wind River Mountains.

Senator Benton hoped that Frémont's expedition would draw the attention of potential settlers to the South Pass as a gateway to the Oregon Territory. Frémont's natural flamboyance made him the ideal figure for such a publicity-driven expedition. When he reached the Wind River Mountains in Wyoming, he decided to climb a mountain that he called "Snow Peak" and mistakenly believed it was the highest in the Rockies (there are actually more than 100 higher mountains in Colorado). After days of struggling up

the icy slopes of the mountain, he reached the summit on August 16, and in a grand and later legendary gesture, planted a homemade U.S. flag at its summit—or, as Frémont put it, “unfurled the national flag to wave where never flag waved before.” The flag that Frémont carried up the mountainside became a symbol of America’s willingness to fulfill its Manifest Destiny; Senator Thomas Hart Benton would display his son-in-law’s flag from the upper windows of his Washington, D.C., townhouse in 1847 as a demonstration of patriotic enthusiasm during the Mexican War.

Frémont’s flag-raising was an inspiring gesture, even though it had absolutely nothing to do with his ostensible assignment of mapping a route for western-bound emigrants; they certainly were not going to be taking their ox-drawn wagons up and over the 13,517-foot “Snow Peak.” (Mindful of the example set by his predecessors Zebulon Pike and Stephen H. Long in leaving their names upon the landscape of the Rockies, Frémont would later rename the mountain Frémont Peak.)

Returning to Washington, D.C., at the end of October, Frémont set to work on a report of his adventures. Written in the form of a daily journal and published as a report to Congress the following spring, it caused a sensation, both for its description of the ease of travel over the South Pass (which Frémont compared to climbing Capitol Hill in Washington, D.C.), and for its thrilling account of the flag raising on “Snow Peak.” Frémont did much to destroy the prevalent popular image, left from the Pike and Long Expeditions, that a vast wasteland barrier stood in the way of western migration. In the months following the publication of Frémont’s report, it was reprinted in newspapers throughout the country and helped create a popular senti-

ment known as “Oregon Fever.” While the number of settlers who actually set off west along the Oregon Trail that year was numbered in the thousands, many Americans were now convinced that it was time to push the British trespassers out of Oregon country once and for all.

As for Frémont, he already had new orders from Colonel Abert to return to the South Pass. This time he was officially authorized to cross the pass and continue on to the Columbia River. From the Oregon country he was then to head south to California, retracing the trail followed by the Wilkes Expedition’s land party the previous year. With help from the Corps of Topographical Engineers, expansion-minded U.S. leaders in Washington, D.C., were beginning to close in on the goal of securing the Oregon Territory, the Texas and Southwest region, and California.

THE MEXICAN WAR AND ITS AFTERMATH

When the United States went to war with Mexico in 1846, the Corps of Topographical Engineers joined the expeditionary forces invading Mexican-held territory in the Southwest and California, as well as Mexico itself. An obscure army captain named Robert E. Lee, later to win fame in the Civil War as commander of the Confederate Army of Northern Virginia, was among the topogs who drew up maps for the U.S. military forces in Mexico.

Another topog, Lieutenant William H. Emory, accompanied forces led by General Stephen Watts Kearny from New Mexico to California, mapping their route, visiting ruined Indian pueblos, and speculating about the future agricultural development of the region, as well as taking part in the Battle of San Pascual in December 1846, where his gal-

lantry under fire won him a promotion to major.

By September 1847 the U.S. flag was flying over Mexico City. Peace followed early the following year with the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848. Mexico's northern border would henceforth be at the Rio Grande. The defeated Mexicans ceded 525,000 square miles of territory to the United States, lands that would comprise the future states of California, Arizona, Nevada, Utah, and parts of New Mexico, Colorado, and Wyoming. With the annexation of Texas and Oregon in the 1840s, and the purchase of an additional strip of southwestern territory in 1853 (the Gadsden Purchase), the map of the

United States came to assume the basic outline that is familiar today, with the exception of the noncontiguous states of Alaska and Hawaii.

Victory brought new tasks for the Topographical Engineers. Major Emory was assigned by the Topographical Corps to serve with the U.S.-Mexico Boundary Commission, charged with accurately mapping the new 1,800-mile boundary dividing the southwestern United States from Mexico. Over the next several years, in addition to cartographic duties, Emory and his assistants gathered animal and plant specimens, as well as extensive information about archeological sites, local Indian tribes, and the geology of the region.



The Corps of Topographical Engineers created maps for the U.S. forces in the U.S.-Mexican War. U.S. forces fought the Battle of Molino del Rey on September 8, 1847. (*National Archives*)



The Transcontinental Railroad Surveys of the 1850s

In the early decades of the 19th century, the United States underwent a transportation revolution. In 1807 Robert Fulton's steamboat, the *Clermont*, began plying the waters of the Hudson River; by 1811 steamboats were operating on the Mississippi River, and soon thereafter on the lower reaches of the Missouri. The opening of the Erie Canal in 1825 made it possible to speedily and cheaply transport goods all the way from New York City to the Great Lakes, and set off a canal-building craze that by 1840 added more than 3,000 miles of human-made waterways to the American landscape. And, most dramatically, between 1830 and 1840 nearly 3,000 miles of railroad track were constructed, allowing trainloads of passengers and cargo to hurtle along at 25 miles an hour, a speed previously unimaginable on land.

By the mid-1830s politicians and railroad promoters had begun to dream of the day when a railroad line would stretch across the country. John C. Frémont led a privately funded expedition into the Rockies in 1848 in an unsuccessful attempt to find a route for a transcontinental railroad. In 1853 Congress passed the Pacific Railroad Survey Bill, authorizing four separate expeditions to search for a usable route for a transcontinental railroad. Officers from the Army Corps of Topographical Engineers led most of these expeditions in 1853–54. Captain John Pope and Lieutenant John Parke led an expedition along the 32nd parallel, Lieutenant Andrew Whipple led an expedition along the 35th parallel, and Captain George Gunnison led an expedition along the 38th parallel. (Parallels are mapmakers' lines, measuring latitude or distance from the equator). The northernmost expedition, led by Washington Territory governor Isaac I. Stevens, explored a line from St. Paul, Minnesota, to Washington's Puget Sound. The surveyors could not agree on a desirable route for the first transcontinental railroad, but the naturalists who accompanied the surveys turned up enough information about the regions surveyed to fill 17 volumes of official reports. It was not until the end of the U.S. Civil War that construction on the transcontinental railroad began in earnest, along a line stretching along the 42nd parallel, with the iron rail link between the Atlantic and Pacific Oceans finally completed in 1869.

In the decade and a half following the Mexican War, the Corps of Topographical Engineers conducted two dozen scientific surveys, including Captain Howard Stansbury's survey of the Great Salt Lake in 1849 and Lieutenant Joseph Christmas Ives's exploration of the lower Colorado River in

1858, which brought him to the western edge of the Grand Canyon. In addition, the corps devoted considerable time and energy to surveying potential routes for the proposed transcontinental railroad, which the acquisition of California suddenly made possible.

GOUVERNEUR KEMBLE WARREN AND THE DARK SIDE OF MANIFEST DESTINY

The officers of the Corps of Topographical Engineers were justifiably proud of their achievements, as individuals and as a military unit. At least one of them, however, Gouverneur Kemble Warren, came to question the costs of U.S. expansion for the native peoples of western North America.

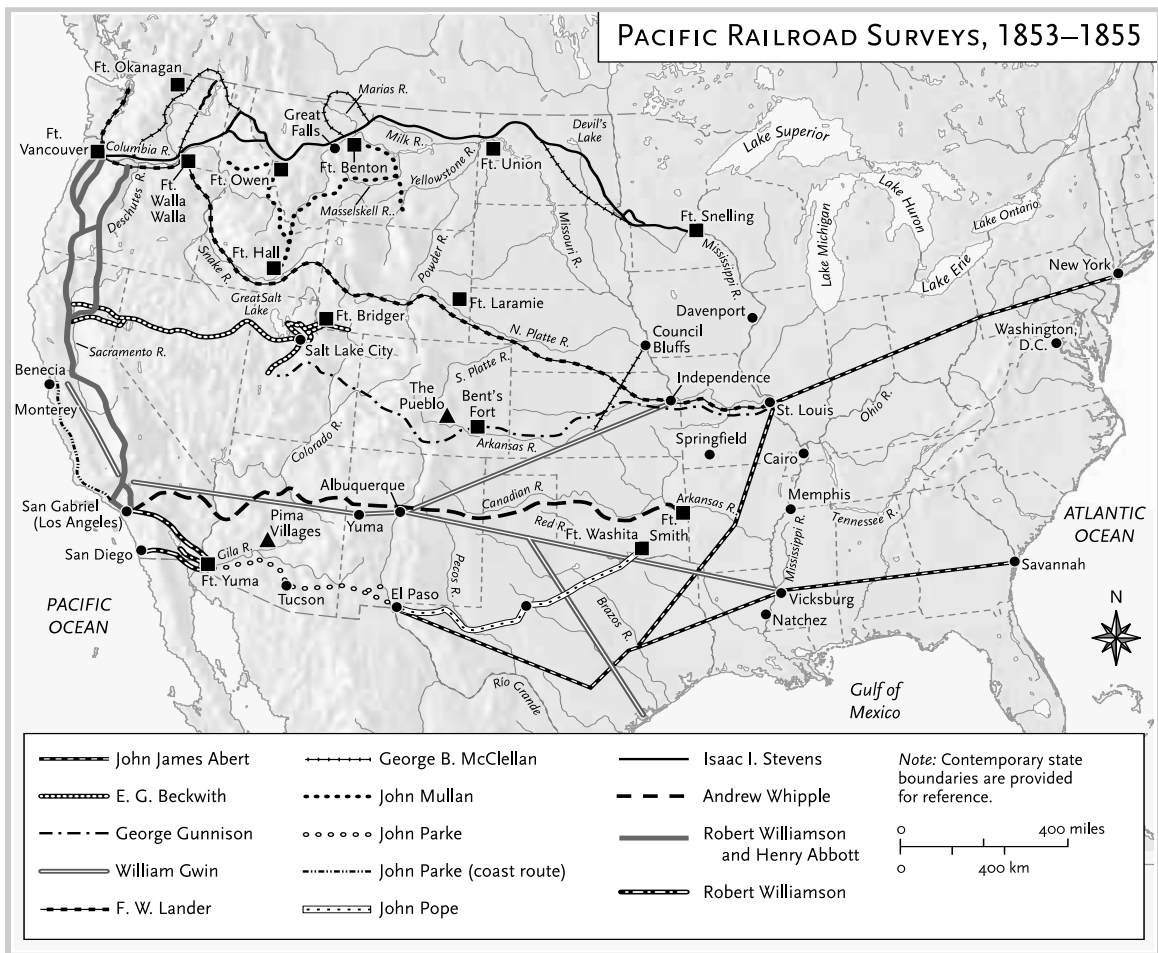
Warren was born January 8, 1830, in Cold Spring, New York, a small town on the Hudson River where his father ran an iron foundry. In 1846 he traveled across the Hudson to enroll at the U.S. Military Academy at West Point, graduating second in his class in 1850. That fall he took up duties as a second lieutenant in the Corps of Topographical Engineers. Warren spent most of his first year of active duty on the banks of the Mississippi, surveying its wandering course, and helping draft a report of recommendations for how best to contain and channel the river's destructive power. After that he was assigned to the Pacific Railroad Survey.

In 1855 he joined a military unit commanded by General William S. Haney in the Dakotas, hunting down a band of Brulé Sioux who had fought an earlier battle with the U.S. Army. On September 2 the unit found the Indians at Blue Water Creek and attacked. This was Warren's first taste of combat. The outnumbered Indians were driven from their encampment and killed in great numbers. It was not only Brulé warriors who died that day. Walking the battlefield afterward, Warren was shocked to find "women and children crying and moaning, horribly mangled by bullets." He wrote that he was "disgusted with the tales of valor" told by the blue-coated victors in his own army.

In 1856 Warren was given a new surveying assignment in the upper Missouri and Yellowstone River valleys. He spent six months in the region with a small crew, including the Oberlin College-trained geologist Ferdinand V. Hayden, who would go on to a distinguished career as a cartographer. The following year Warren was sent to the Black Hills of the Dakota Territory. In September his party met with some Oglala Sioux. The Sioux regarded the Black Hills as sacred ground, and



After becoming aware of the situation of American Indians as the United States claimed more and more of the land in western North America, Gouverneur Kemble Warren sympathized with them. (*Library of Congress, Prints and Photographs Division [LC-USZ62-124287]*)



were bitterly opposed to white encroachments in the region. Warren insisted that he had to carry out his instructions and explore the hills, but in the pages of his journal he conceded that the Indians had justice on their side: “How true was all they said. The only security these Indians can have in the possession of their country would be in its utter worthlessness to the whites.”

In the end, the Sioux permitted Warren's party to enter the Black Hills in peace. Warren carried out his mission with customary thor-

oughness, and brought back to Washington, D.C., a wealth of information about the region's geology, flora, and fauna. He also made note of the region's economic potential, including the existence of “valuable quantities” of gold to be had by digging up the Black Hills. For the moment, few whites heeded Warren's words. But after the Civil War, when gold was rediscovered in the Black Hills, the whites poured in. By 1877 Sioux claims to the Black Hills territory were no longer recognized by the U.S. government.

When the Civil War came in 1861, Warren and the other “topogs” gave up their peaceful exploring and surveying duties. Some, like Lieutenant Joseph Christmas Ives, resigned from the corps to join the Confederate army. Others, such as New Hampshire native Stephen H. Long and New Yorker Gouverneur Warren, remained with the Union forces. Warren rose quickly through the ranks to become a general and chief of engineers for the Army of the Potomac. The greatest moment of his military career came on July 2, 1863, the second day of the Battle of Gettysburg, when he noticed that the top of a rocky hill at the far left of the Union line was unoccupied. He hurriedly gathered up a scratch force of defenders

who held the hill, known to history as Little Round Top, in the face of repeated rebel attacks that bloody afternoon. General Warren’s topographical instincts and quick action saved the Army of the Potomac from being outflanked and defeated at Gettysburg, and in doing so made a singularly important contribution to the eventual triumph of the Union in the Civil War.

The Army Corps of Topographical Engineers did not survive the Civil War. In March 1863 it was merged with the Army Corps of Engineers and lost its separate identity, marking the end of a significant era in the history of the exploration of the West.

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JOHN C. FRÉMONT AND THE EXPLORATION OF CALIFORNIA



Before California was a name on the map, it represented a dream—a dream of wealth. In 1510 a Spanish author imagined an island in the New World “very near to the region of Earthly paradise,” an island where gold was so plentiful that even the “wild beasts” wore it as jewelry; he called this imaginary place “California.” In time that name would be attached by Spanish cartographers to a long stretch of land along the Pacific coast of the North American continent. California would also come to be called the land of El Dorado—a legendary city of gold that the Spanish searched for but never found in Central America. California would indeed become a land of gold, first during the gold rush of 1848–49, and then in later years when industry, agriculture, and natural resources made it the richest state of the United States. If California were a separate country today, it would rank among the top 10 nations in the world in terms of goods and services produced.

When U.S. politicians first began to talk about their nation’s “Manifest Destiny” to



Shown in a Mathew Brady daguerreotype, Senator Thomas Hart Benton served five full terms in the U.S. Senate during the time that many Americans believed in the country’s “Manifest Destiny.”
(Library of Congress, Prints and Photographs Division [LC-USZ62-110024])

spread from coast to coast, they looked to the Oregon country as the key to unlocking the riches of the Pacific. Senator Thomas Hart Benton relished the days to come when “a stream of Asiatic commerce [pours] into the valley of the Mississippi through the channel of Oregon.” But in the course of the 1840s California replaced Oregon in the minds of many Americans, including Senator Benton, as the most desirable territorial prize to be won on the Pacific. Benton’s explorer son-in-law, John C. Frémont, popularly known as “the Pathfinder,” played a major role in the events that made that dream a reality.

EARLY CALIFORNIA EXPLORATION

The first European explorers to visit California saw little more than its shoreline. In 1542 Spanish explorer Juan Rodríguez Cabrillo sailed up the California coast in search of the Northwest Passage, making landfall at the site of present-day San Diego and Santa Barbara. He traveled as far north as the site of present-day San Francisco, though he failed to discover San Francisco Bay. After Cabrillo died at sea, his second in command, Bartolomé Ferrello, traveled even farther north in 1543, reaching an area near the present-day California-Oregon border. The English were next to arrive, when Sir Francis Drake, having raided Spanish towns and ships on the South and Central American coasts in his famous privateering ship the *Golden Hind*, came looking for a place to hide out and refit for the trip back to England. He made landfall north of San Francisco in 1579. Drake named the region New Albion and claimed it for Queen Elizabeth, a claim that did not stick. In the middle of the 18th century the first Spanish settlements were created in California. Starting in 1769 and during the next half-century,

Franciscan missionaries established 21 missions in a coastal band stretching from San Diego to Sonoma. In 1776 the Spanish built a presidio, or fort, on San Francisco Bay; the settlement that grew up around the fort would be known until 1847 as Yerba Buena. All told, there were only a few thousand Spanish settlers in California by the start of the 19th century, and they showed little interest in exploring the lands that lay to the east of California’s coastline.

THE ERA OF MEXICAN RULE

With Mexican independence from Spain in 1821, California passed from Spanish to Mexican control. The Mexican government dismantled the mission system, transferring church-owned lands to private hands as a way of encouraging Mexicans to settle in the region. The Mexican government worried that outsiders would rob Mexico of its northernmost province, and with good reason.

U.S. trading ships began to appear off the coast of California in the 1790s and brought back reports to the East of the beauty and the potential wealth of the region. Henry Richard Dana, who journeyed to California aboard a U.S. merchant ship in 1834 and described his adventures at sea in a widely read memoir, *Two Years Before the Mast*, thought the Mexicans had done little to exploit the riches of their province: “In the hands of an enterprising people,” he wrote enviously, “what a country [California] might be!” The first American to reach California overland was mountain man Jedediah Smith, who arrived in 1826. Smith and other fur traders did not stay long, but in 1841 a group of U.S. settlers arrived, led overland by John Bidwell and John Bartleson. Swiss-born John Sutter also came to settle in California, building a trading post at the site of



This mission in San Juan Capistrano (near present-day Los Angeles), one of 21 that Franciscan missionaries established in the late 1700s, was founded in 1776 and completed in 1806. (*Library of Congress, Prints and Photographs Division [HABS, CAL, 30-SAJUC, 1-1]*)

present-day Sacramento. Sutter's Fort became a way station in the early 1840s for U.S. settlers moving to California. Both the Mexican authorities and the U.S. settlers in California were well aware of the precedent set in Texas in 1836, when Americans had overthrown Mexican rule and established their own independent republic. It would not be long before U.S. settlers in California began hatching their own plans for challenging Mexican authority.

FRÉMONT'S 1843–1844 EXPEDITION

In March 1843 Lieutenant John C. Frémont of the U.S. Army Corps of Topographical Engi-

neers was in Washington, D.C. He had just finished writing up the report of his 1842 expedition to the Rockies, a report whose publication later in the year would make him a popular hero in the United States. Now, through the influence of his father-in-law, Senator Thomas Hart Benton, he received new orders. He was to return to the West, crossing the Rockies, to survey the trail to the Oregon country. Senator Benton hoped the expedition would encourage more Americans to move to Oregon. Ostensibly a scientific expedition, it would also be well armed: Frémont requisitioned a cannon and 500 pounds of ammunition, a heavy load to haul over the Rockies. Colonel John J. Abert, commander of

the Corps of Topographical Engineers, was astonished to learn of the cannon. He wrote that Frémont was supposed to be leading “a peaceable expedition . . . an expedition to gather scientific knowledge.” Frémont, knowing he had powerful friends to back him up if need be, took the cannon anyway.

At the end of May 1843 Frémont set off across the Kansas plains on his expedition with 39 men on horseback and the cannon in tow. He hoped to find a route over the Rockies to the south of the now well-established South Pass route. At the trading post at Pueblo, Colorado, Frémont met an old trail companion,



Kit Carson, in a 19th-century Mathew Brady photograph, helped explore much of the western frontier for the United States. (*Library of Congress, Prints and Photographs Division [LC-DIG-cwpbh-00514]*)

Kit Carson, whom he recruited on the spot to accompany the expedition westward. Frémont divided his party, taking 15 men up the Cache la Poudre River canyon in search of the new pass across the Rockies, sending the others with the expedition’s wagons and the bulk of their supplies over South Pass. But the Cache la Poudre route proved too difficult and, within days, Frémont’s party headed north across the Laramie Plain to rejoin the others crossing the South Pass.

Once across the Rockies, Frémont impulsively decided to make a detour to the Great Salt Lake. Or perhaps not impulsively, for he had brought along an 18-foot-long experimental rubber boat with the expedition’s supplies, “a frail batteau of gum-cloth distended with air, and with pasted seams,” as Frémont described it. He took it out on the lake, claiming that it was the first time that white men had ever ventured onto its waters (mountain man Jim Bridger had actually preceded him in the feat, in a bull boat in 1826). Thanks to visits by U.S. and Canadian mountain men, the Great Salt Lake’s location was already well known, but Frémont was the first to pronounce it a good place for settlers to come, surrounded by what he called “fertile and timbered” land, a description that would influence the decision by Mormon settlers to migrate to Utah a few years later.

By the time he was en route again to Oregon, the weather was turning cold; Frémont gave his men the choice of whether they wanted to accompany the expedition any further, and 11 chose to return to St. Louis. Frémont’s reduced party then headed up the Snake River Canyon toward the Columbia.

THE GREAT BASIN

Frémont had his limits as an expedition leader. He was a poor planner, given to rash

decisions and eager for glory, even if it came at the expense of carrying out his assigned duties. But he had one great strength as an explorer: he could look at a landscape and make sense of it. En route from the Great Salt Lake to Oregon, he had a geographical revelation. Between the Sierra Nevada of California to the west, and the Wasatch Range of central Utah to the east, Frémont knew there lay a vast arid region, watered by a few rivers flowing down from those mountains. Where, he wondered, did the water go? He realized the region was the only place in the United States where, as he would write, the waters flowing down the mountainsides “have no connexion with the ocean, or the great rivers which flow into it.” Frémont called this the “Great Basin,” the name by which the region continues to be known today. The Great Basin includes most of present-day Nevada, as well as portions of

western Utah, southern Oregon, and eastern California.

By late October Frémont’s party had reached the Columbia River and followed its south bank downriver. Frémont passed by several Hudson’s Bay Company trading posts, symbols of British power in the Oregon country that he found dismaying. But the British sent fur traders, not settlers, to the region. Frémont was encouraged by the number of recently arrived Americans he encountered along the way.

THE SIERRA NEVADA

On November 25 Frémont’s party headed south from the Columbia along the side of the Deschutes River. They crossed the Klamath River and passed southeast of Upper Klamath Lake in southern Oregon. If Frémont kept



The Great Basin, a portion of which is shown in a mid-19th century lithograph, stretches from the Sierra Nevada in present-day California to the Rockies in present-day Utah. (*Library of Congress, Prints and Photographs Division [LC-USZC4-1998]*)

heading south, he would leave the Oregon country and cross over into California. Frémont had now carried out his original assignment of scouting the Oregon Trail. His orders said nothing about continuing his exploration into California, which was, after all, foreign territory. But in another characteristically impulsive decision, he decided to lead his men across the Sierra Nevada into the Mexican province.

The Sierra Nevada lie to the east of California's Central Valley, running 400 miles on a north-south axis. They constitute the longest continuous mountain range in the United States, and include such notable features as the granite cliffs of Yosemite Valley on the range's western slope and the towering peak of Mount Whitney, at 14,495 feet the highest mountain in the United States south of Alaska. In a "Geographical Memoir" of his travels in California published in 1848, Frémont again displayed his gift for explaining landscape in his description of the Sierra Nevada's impact on California's climate: "[T]his great mountain wall receives the warm winds, charged with vapor, which sweep across the Pacific Ocean, precipitates their accumulated moisture in fertilizing rains and snows upon its western flank, and leaves cold and dry winds to pass on to the east. Hence the characteristic differences of the two regions—mildness, fertility, and a superb vegetable kingdom on one side, comparative barrenness and cold on the other."

Frémont and his men were heading south beside the barren, cold eastern slope of the Sierra Nevada, on a path that roughly followed the present-day California-Nevada border. He was looking for the fabled San Buenaventura River, the same river that Jedediah Smith had searched for in vain back in 1826. If the river did exist as imagined by generations of map-makers, it would provide an easy route

through the Sierra Nevada mountains. Frémont got as far south as Lake Tahoe without seeing any sign of the river, putting an end once and for all to that geographical phantom.

It was now late January, far from the best time to attempt a mountain crossing. But Frémont had decided to cross the mountains and head to Sutter's Fort to buy supplies. Local Indians whom Frémont attempted to hire as guides across the mountains were astonished at Frémont's folly: "They looked at the reward we offered," he would later write, "and conferred with each other, but pointed to the snow on the mountain, and drew their hands across their necks, and raised them above their heads, to show the depth; and signified that it was impossible for us to get through." Although Jedediah Smith had crossed the mountain range in 1827, there had been no recorded crossing of the mountains in winter. But Frémont could not be deterred.

They started up the mountain slopes on January 29. One thing soon became apparent; they were not going to get Frémont's cannon across the mountain and had to leave it behind. "We left it, to the great sorrow of the whole party, who were grieved to part with a companion which had made the whole distance from St. Louis . . .," Frémont wrote. It took them a full month to fight their way through the deep snow in the mountains; their Indian guides deserted them, and they had to kill off their horses one by one for food. But they made it, passing over 9,338-foot Carson Pass, later to become the major overland route for gold-seeking prospectors coming from the East. When they descended the western slopes of the Sierra Nevada into the valley below, they were, as Kit Carson later recalled with slight exaggeration, "naked and in as poor condition as men possibly could be."

THE GREAT VALLEY

The Central or Great Valley of California extends 450 miles through the California interior. Bounded on the north by the southern Cascades and the Trinity Mountains, and on the south by the Tehachapi Mountains, the valley was formed by two major river systems, the Sacramento to the north and the San Joaquin to the south. It was destined to become one of the world's richest agricultural regions.

Frémont and his men followed the American River down from the mountains to Sutter's Fort, where they rested and resupplied. On March 24 they rode south along the San Joaquin River. Frémont was charmed by the "delightful climate and uncommon beauty" of the valley, as he would later write. The valley promised riches to the men and the nation who could develop it: "[I]ts grand commercial position," Frémont wrote, "took possession of my mind."

In mid-April Frémont and his men took leave of California, crossing a pass in the Tehachapi Mountains. From there they descended into Frémont's "Great Basin," following an old Spanish trail along the Mohave River, and reaching the site of present-day Las Vegas on May 3. Four months later they were back in St. Louis, having traveled the last stretch down the Missouri by steamboat. They had been gone 15 months.

Settling back in Washington, Frémont sat down to write another narrative of his adventures, helped by his literary-minded wife, Jessie Benton Frémont; he submitted his narrative to the secretary of war in March 1845. Congress ordered 10,000 copies printed, and more soon rolled off the presses in private editions. In his absence, Frémont had become a celebrity explorer, his deeds compared to those of Lewis and Clark. The maps Frémont produced with surveyor Charles Preuss were

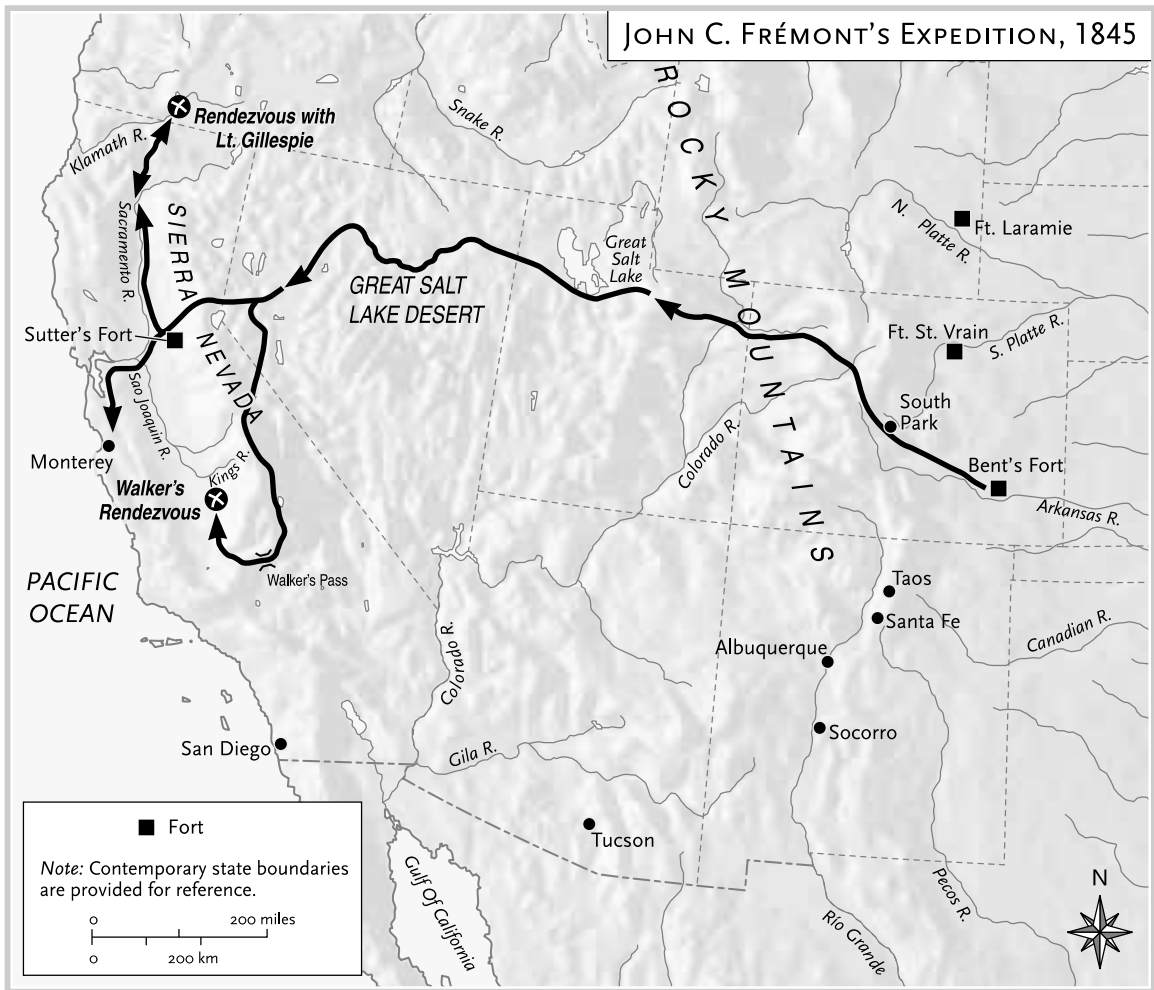
widely circulated. A few years later, returning east from yet another expedition, he had the great pleasure, as he wrote to a friend, of encountering "many strong and warm friends" among the settlers heading west. "They were using my maps on the road," he wrote proudly, "and you may judge how gratified I was to find that they found them perfectly correct . . ."

FRÉMONT'S 1845–1846 EXPEDITION

While he was polishing his report to the secretary of war in February 1845, Frémont (now promoted to captain) received new orders from his Topographical Corps commander, Colonel Abert. He was to lead a third expedition west, this time to explore the headwaters of the Arkansas and Red Rivers in the Rockies. A strict adherence to his orders would have kept him east of the Continental Divide, and devoting his efforts single-mindedly to geography and cartography.

But strict adherence to orders had never been characteristic of Frémont, as Abert had good reason to know. Moreover, the orders were issued at a moment of growing tension between the United States and Mexico over the future of Texas—and perhaps of the entire Southwest and Pacific coast. A new expansionist-minded president, James K. Polk, was about to take office. Congress passed a joint resolution calling for the annexation of Texas, knowing full well that the Mexican government would regard it as a dangerous provocation. As before, Senator Thomas Hart Benton was scheming for ways to push his nation's borders westward. Officially, Frémont's orders had nothing to do with these expansionist dreams. What unofficial orders or suggestions he may have received remain unknown.

In early June Frémont set out from St. Louis heading west to Bent's Fort, a fur trad-



ing post on the Arkansas River in Colorado. Frémont sent part of his party, under command of Lieutenant James Abert (the son of Colonel Abert) to explore the Canadian River to its junction with the Arkansas. The bulk of the party, 60 men including Kit Carson, remained with Frémont. They were, Frémont would later write, “mostly experienced and self-reliant men, equal to any emergency likely to occur, and willing to meet it.” On August 16 they set off, following the Arkansas

River westward. By mid-October they were at the Great Salt Lake, where they spent two weeks exploring its shores. They pushed on into the Great Basin, crossing the Great Salt Lake Desert.

CROSSING THE SIERRA NEVADA AGAIN

On November 29, with 15 men, Frémont set out to find a new pass through the Sierra

Nevada. Meanwhile, the larger party, under the command of veteran mountain man Joseph Walker took a more southerly route to climb an already known pass across the mountains. This was the same Joseph Walker who back in 1833 had crossed the Sierra and glimpsed Yosemite Valley.

On December 4 Frémont and his men crossed the Sierras by a new route, a 7,200-foot pass. Theirs was a relatively easy crossing under clear skies. A party attempting the same pass in 1846 would not be as lucky. A group of settlers led by Jacob and George Donner would be trapped in the mountains by winter storms and would descend into a nightmare of starvation and cannibalism, before a remnant of the party was rescued. The pass was thereafter known as Donner Pass.

Descending to the sheltered western slope, Frémont's party enjoyed fine weather and warm temperatures. "We had made good our passage of the mountain," Frémont would later write, "and entered now among the grand vegetation of the California Valley." From there they had an easy ride to Sutter's Fort. Sutter received Frémont hospitably, though the Mexican authorities had been questioning him about Frémont's intentions since his last visit.

After buying cattle and other supplies from Sutter, they headed south down the San Joaquin Valley in mid-December to rendezvous in the Sierras with the Walker party. Frémont's decision to split his party earlier proved to be a mistake. The ride down the valley was punctuated by skirmishes with hostile Indians, and when they reached the King River, the scheduled rendezvous site in the Sierras, Walker's party failed to show up. Facing blizzards in the mountains, they retreated to the comforts of Sutter's Fort, arriving on January 15, 1846.





Joseph Walker crossed the Sierra Nevada and saw Yosemite Valley, the splendid valley visible in this 1860s photograph and currently part of Yosemite National Park. (*Library of Congress, Prints and Photographs Division [LC-USZ62-77177]*)

FRÉMONT'S MYSTERIOUS BEHAVIOR

Frémont's actions during the next six months are difficult to account for. They seem like those of a man waiting for something to happen. He wandered up and down the California coast and central valley, sometimes inviting trouble, sometimes avoiding it, sometimes exploring, but mostly riding around with his heavily armed band of men "equal to any emergency likely to occur." In mid-January he took a few men down to the port of Yerba Buena (present-day San Francisco). He coined a name for the opening in the coastal mountains that lets the ocean into San Francisco Bay, calling it the "Golden Gate."

Riding south in late January, the Americans reached Monterey, the province's leading city. There Frémont met with General Don José Castro, the commander of Mexican forces in the province of California—a force that amounted to a few hundred poorly equipped soldiers. Frémont assured the Mexican general that he "was engaged in surveying the nearest route from the United States to the Pacific Ocean [and] that the object of the survey was geographical, being under the direction of the Bureau of Topographical Engineers, to which corps I belonged; and that it was made in the interests of science and of commerce, and that the men composing the party were citizens and not soldiers." How much of this General Castro believed is not known, but by Frémont's account he was "treated with every courtesy" and allowed to acquire supplies for his men in Monterey.

Frémont then rode to San Jose, where he was reunited with the remainder of his detachment under Joseph Walker, who had had a long and difficult passage over the mountains. Frémont spent some time exploring the coastal range near present-day Santa

Cruz, California. There he came across the first redwood trees he had ever seen, the tallest living things on Earth. He was amazed to find trees of "a diameter of nine or ten feet," and reaching 200 feet or higher into the sky. While Frémont was enjoying the "invigorating salt breeze" that blew in from the ocean, however, Mexican officials were growing more concerned about this large, well-armed band of foreigners riding at will through their countryside. Frémont had told the Mexicans in Monterey he was there only to gather supplies for a trip north to the Oregon Country; but now he headed south, past Monterey, and into the lower San Joaquin Valley.

CONFRONTATION WITH THE MEXICANS

The Mexican authorities finally decided they had had enough of John C. Frémont. General Castro sent him a letter by courier, which arrived in Frémont's camp on March 3. Castro ordered Frémont and his men to leave California immediately. "I expressed to the envoy my astonishment at General Castro's breach of good faith, and the rudeness with which he committed it . . .," Frémont would later write self-righteously.

His response to Castro's "rudeness" was to prepare for war. He moved his camp to a strong defensive position atop a coastal mountain called Gavilan Peak, overlooking the road to Monterey, where he had his men build wooden barricades. He had his men raise the U.S. flag on the hilltop—"a premonitory symptom" he would later write, of California's future as U.S. territory. Mexican foot soldiers and cavalry gathered below. Then Frémont seemed to develop second thoughts about the impending battle. On the Americans' third day in their mountaintop fortress, their flagpole fell over. Frémont took that as a sign



Kit Carson, camping with his men in this engraving, served as an agent for some American Indian tribes and fought other tribes. (*Library of Congress*)

that he “had remained as long as the occasion required.” Under cover of darkness on the night of March 9, Frémont pulled his men off the peak and set off again for Sutter’s Fort.

Having backed down from fighting the Mexicans, Frémont instead launched an attack on an Indian village, an attack that Kit Carson, never known to shrink from a fight, referred to as “a perfect butchery.” Frémont justified the assault on the Indians as vengeance for previous attacks on U.S. settlers, though in a Mexican province, protection of settlers would seem to have been a task for the Mexican army to carry out. Frémont’s actions may have been intended to signal to the U.S. settlers that the U.S. army was now on

hand to back them up in any fight they might choose—with Indians or with Mexicans.

Frémont and his men returned to exploring in early April, heading north past Mount Shasta and crossing over into the Oregon country. But as his men rode north, war was breaking out to the south. U.S. Army general Zachary Taylor led his forces into disputed territory near the Rio Grande, provoking a Mexican attack, which prompted a U.S. declaration of war. Meanwhile in California, small groups of settlers were preparing to take up arms against Mexican authorities, heartened by Frémont’s mountaintop defiance of General Castro. But the U.S. settlers were puzzled by Frémont’s disappearance, at just the moment

when they most needed his assistance. John Sutter later commented, “Flitting about the country with an armed body of men [Frémont] was regarded with suspicion by everybody.” Historians are still divided about Frémont’s real motives and strategy; what seems most probable is that he was simply undecided as to how far he could or should go in provoking California’s Mexican rulers, and was awaiting new orders or developments.

THE U.S. ANNEXATION OF CALIFORNIA

The turning point for Frémont came on May 9, when Archibald Gillespie from Washington, D.C., carrying confidential orders, as well as the news of the outbreak of the war with Mexico, caught up with Frémont at Oregon’s Upper Klamath Lake. “The mission on which I had been originally sent to the West was a peaceful one,” Frémont would write in his memoirs. But his new orders “absolved” him from his “duty as an explorer.” Instead, “I was left to my duty as an officer of the American Army . . .” The exact nature of the instructions Frémont received remains a mystery, but he interpreted them as giving him the go-ahead to seize California for the United States. “I saw the way opening clear before me. War with Mexico was inevitable; and a grand opportunity now presented itself to realize in their fullest extent the far-sighted views of Senator Benton, and make the Pacific Ocean the western boundary of the United States.”

After some skirmishes with Klamath Indians, in which three members of Frémont’s expedition were killed, they returned to the Sacramento Valley. There they found armed U.S. settlers preparing to attack Mexican forces in Sonoma. The rebels had adopted a flag bearing the words “California Republic” and a picture of a grizzly bear; hence the



In this 1923 photograph by Edward Curtis, a Klamath Indian chief wearing a feather headdress prays on an outlook over present-day Crater Lake, Oregon, part of the traditional lands of the Klamath. (*Library of Congress, Prints and Photographs Division [LC-USZ62-103070]*)

uprising became known as the Bear Flag Rebellion. Frémont would later claim a large share of the glory for the rebellion’s success. He actually played only a minor role in fighting the Mexicans. But his presence in California encouraged U.S. settlers to believe that they could overthrow Mexican rule with the backing of their own government, and thus he does deserve some of the credit for what was to come.

Some of Frémont’s men marched off to Sonoma with the settlers. He did not go with

them, instead riding with 12 men to Yerba Buena (San Francisco), where they found no Mexican soldiers. Unopposed, they spiked the old Spanish cannons at the presidio guarding the entrance to the bay. Then he rode on to Sonoma, where at a meeting of the Bear Flag rebels on July 5, he was chosen as the rebellion's leader.

Other U.S. military forces were beginning to arrive in California. The first of the newcomers came by sea. Commodore John Drake Sloat, commander of the U.S. Navy's small Pacific fleet, seized Monterey on July 7, and proclaimed California "a portion of the United States." Frémont's followers from his topographical party as well as the rebellious settlers were sworn into the U.S. Army as the "California Battalion," and carried aboard a U.S. warship south along the coast to the Mexican-controlled port of San Diego, captured without opposition on July 29.

Commodore Sloat now stepped down from command due to ill health. The new commander of U.S. forces in California, Commodore Robert F. Stockton, ordered Frémont to march north to aid in the capture of Los Angeles, which again was taken without resistance. Commodore Stockton appointed Frémont military commandant of California. Soon after, the first serious resistance to the Americans took shape, with Mexican forces retaking Los Angeles and beating off U.S. counterattacks.

Frémont led his men back to Los Angeles in December, but arrived too late to take part in the city's recapture. The hero of the battle was General Stephen Watts Kearny, a hard-bitten veteran of the War of 1812, who had taken Santa Fe from the Mexicans in August 1846 and then led a detachment of dragoons (mounted infantrymen who fought with muskets rather than cavalry sabers) to California. Kearny and Stockton's combined forces

handed the Mexicans a decisive defeat at a battle on the San Gabriel River on January 8–9, 1847, and in doing so secured control of California for the United States.

Kearny considered himself the supreme U.S. military commander in California; Frémont, with his own appointment as military commandant by Stockton, disagreed. Their feud turned nasty, and Kearny eventually brought charges against the uppity Captain Frémont for insubordination and mutiny. Frémont, in his own mind the hero of the California rebellion, returned to Washington, D.C., under arrest. He was court-martialed and found guilty, and he was dismissed from the army. President Polk offered to restore him to active duty in recognition of past service, but Frémont, angry and humiliated, refused the offer and resigned his commission.

FRÉMONT'S 1848 EXPEDITION AND HIS LATER CAREER

Though out of the army, Frémont remained an explorer. With Senator Benton's backing he headed west again in October 1848, on his fourth Rocky Mountain expedition, this time in search of a possible route for a transcontinental railroad. The expedition's late start meant they would be arriving at the Colorado Rockies in the dead of winter. Frémont ignored warnings from experienced mountain men that the winter was shaping up to be one of the coldest they could remember. The expedition headed into the mountains and then was trapped by blizzards that left snowdrifts as deep as 25 feet. Frémont had been lucky in his winter crossings of the Sierra Nevada; this was the expedition on which his luck ran out. Ten of his men died of exposure

and starvation; conditions had been so bad that one of the corpses found by a rescue party showed signs of cannibalism.

Despite the court martial that brought his army career to a dead-end, and despite the ill-fated 1848 expedition, Frémont's reputation as hero of western exploration remained untarnished. In the popular mind, no other American was more closely linked to the acquisition of California than Frémont. When gold was discovered in 1848 at Sutter's Mill, on the south fork of the American River in the foothills of the Sierra Nevada, Frémont's achievements were magnified a thousandfold. Tens of thousands of Americans flooded into California the

next year, over paths and passes that Frémont had explored, described, and mapped. Until 1848 the wealth of the West had been represented mostly by the profits from the fur trade, which were now in steep decline. After 1848 it would be mineral wealth—gold, and later silver, and still later oil, that measured the region's importance to the U.S. economy.

Frémont himself became a wealthy man from the gold strike, since he had previously bought land on the slopes of the Sierra Nevada where gold was found. California had enough U.S. citizens to become a state in 1850, and Frémont was elected one of its two new U.S. senators. His writings remained as popular as



In an 1849 Currier & Ives lithograph, men with picks and shovels coming from many directions and using methods of travel ranging from swimming to parachuting from an airship, crowd onto a ship departing for California. (*Library of Congress, Prints and Photographs Division [LC-USZ62-104557]*)

ever; his *Report of the Exploring Expeditions to the Rocky Mountains in 1842 and to Oregon and North California in the Years 1843–44* went through 25 published editions in the United States and Britain in the decade following its 1845 publication. A popular American magazine in 1850 described Frémont as one of the three greatest figures in U.S. history, along with Christopher Columbus and George Washington. Columbus's achievement had been to mark "a pathway to a new found world"; Washington had pointed the way to "the advancement of human rights and human welfare"; and Frémont had "lifted the veil which, since time first began, had hidden from view the real El Dorado."

Frémont made one final expedition in 1853–54, again searching for a transcontinental railroad route. Increasingly he became known as a politician rather than an explorer. Frémont also became recognized in the 1850s for his opposition to slavery, and in 1856 he accepted the presidential nomination of the newly organized Republican Party. He ran on the slogan "Free Soil, Free Men, Frémont" but he lost in November to Democrat James Buchanan. In 1860, with Abraham Lincoln as their candidate, the Republicans were victorious. When 11 southern states responded by attempting to secede from the Union, Frémont quickly rejoined the U.S. Army and was promoted to general. He proved as impulsive as ever. As Union military commander in Missouri in summer 1861, he issued an order freeing the slaves of rebellious slaveowners in the state. President Lincoln immediately countermanded Frémont's order and dismissed him from the army, though less than two years later Lincoln would issue his own far broader emancipation proclamation.

LEGACY OF THE PATHFINDER

In later years Frémont struggled to stay afloat financially, his fortune eaten up by poor investment decisions and lawsuits. His health declined. His days as an explorer were over, and not just because he was growing too old for the rigors of life on the trail. Exploration was changing. The highly individualistic, free-booting style of expedition leadership that Frémont exemplified was becoming a thing of the legendary past. The next wave of exploration in California would be conducted according to scientific norms and bureaucratic rules and regulations. In 1860, to further economic development, the California state legislature authorized the creation of a state geological survey, headed by Yale-trained geologist Josiah Dwight Whitney. The geological survey, among other achievements, measured the heights of California's highest peaks, including Mount Whitney, at the southern end of Frémont's beloved Sierra Nevada.

Frémont's reputation suffered in the later years of his life, and most historical accounts of his career since then have dwelt on his many flaws as an expedition leader. His real achievements should not be minimized. Between 1842 and 1854 Frémont traveled more than 20,000 miles on five expeditions. He made a significant contribution to geographical knowledge, in dispelling the myth of the San Buenaventura River, and in identifying and naming the Great Basin. His writings and maps induced many U.S. settlers to follow the trails he had explored to Oregon and California. There is some truth to Jessie Benton Frémont's heartfelt tribute to her husband late in life: "All your campfires have become cities."

NATURAL HISTORY AND ART



Nineteenth-century Americans enjoyed reading accounts of western exploration by or about such explorers as Meriwether Lewis and William Clark, Zebulon Pike, and John C. Frémont. But their curiosity was not satisfied by the written word alone. They wished to see the West with their own eyes. However, most Americans in the 19th century lived east of the Mississippi River and relatively few would ever have the opportunity to travel and see the wonders they had read of in newspapers, magazines, and books. Instead, they flocked to museums, exhibitions, and other venues in the East where they could inspect western objects, including stuffed animals, dried plants, and Indian artifacts, brought back by explorers and scientists. Or they went to see visual representations of the western landscape, flora, fauna, and peoples, depicted by artists in paintings, prints, and photographs.

Just as the actual exploration of the West in the 19th century depended on the efforts of the U.S. Army and other official expeditions, as well as profit-seeking individuals, so, too, the development of collections of western

natural history and art depended on both government and private enterprise.

NATURAL HISTORY COLLECTIONS

One of the most influential figures in both art and natural history in the late 18th and early 19th centuries was a Philadelphia artist named Charles Willson Peale. Born in humble circumstances in Queen Anne's County, Maryland, in 1741, Peale was apprenticed as a saddler at age nine and taught himself to paint in his spare time. The patronage (encouragement plus financial help) of wealthy Maryland planters who recognized the young man's potential as an artist allowed Peale to travel to London in the 1760s. There he studied with the celebrated American-born artist Benjamin West. Returning to America, Peale became a prosperous portrait artist, counting among his clients the Virginia plantation owner George Washington. When the American Revolution broke out, Peale served as an officer in the Continental army under Washington's command, and fought in the Battles of Trenton and Princeton.



Charles Willson Peale served as an officer in the Continental army under the command of George Washington and was present on the battlefield for the American victory in Princeton, New Jersey, on January 3, 1777. (*National Archives/DOD, War & Conflict, #32*)

With the triumph of the Revolution, Peale turned his energies in new directions. In 1782 he opened the first U.S. art museum in Philadelphia, featuring his portraits of revolutionary leaders. Four years later he expanded his museum's holdings to include a natural history collection.

In the 18th century it was common for well-educated people who were interested in the sciences to keep a cabinet of curiosities in their houses for the admiration of visitors. These collections might include such items as fossils, minerals, seashells, and other natural objects, as well as Indian artifacts. Peale assembled a gigantic collection of such curiosities and made them available for public viewing. The popularity of Peale's museum increased yearly, and in 1802 he moved his collection to Philadelphia's Independence Hall.

Peale was a talented artist, but his real genius might be said to lie in his invention of the role of cultural entrepreneur: The exhibits he presented in his museum appealed to and helped shape the popular tastes of the emerging nation. He was a master showman, always searching for new and exciting exhibits to bring to the public. In the late 18th and early 19th century, Americans were fascinated with news of the discovery of what were starting to be recognized as fossil remains of ancient and extinct creatures, such as the giant sloth and the mastodon. President Thomas Jefferson was among those interested in fossils, though he was not convinced that the animals they represented had all died out; in his instructions to Meriwether Lewis in 1803 he told the explorer to keep an eye out on his trip west for any mastodons that may have escaped extinction.



In a self-portrait, the influential Charles Willson Peale invites onlookers into his museum. (*Library of Congress, Prints and Photographs Division [LC-USZ62-109708]*)

When the fossil bones of a mastodon were accidentally discovered in Newburgh, New York, in 1801, Peale hurried to the site; President Jefferson lent Peale a navy pumping machine to bail out the flooded pit in which the fossilized bones lay. Peale carried the fossils back to Philadelphia, where the mastodon attracted large crowds to his museum. Peale was always thinking of new ways to attract public attention; among his innovations, he pioneered the use of habitat arrangements for animal specimens so that they appeared to be

standing in their natural settings. Such arrangements have remained a standard feature of natural history museum exhibits ever since.

Jefferson remained helpful to Peale in subsequent years, seeing to it, for example, that many of the Indian artifacts and zoological specimens collected by Lewis and Clark on their official expedition were sent to Peale's private museum for exhibition to the public. Peale lived until 1827, and among other achievements fathered 17 children, seven of whom became artists in their own right.

Peale's museum was a private enterprise, brilliantly conceived but poorly managed. When it closed in 1846, many of the exhibits were lost, including the priceless and irreplaceable objects gathered by Lewis and Clark. The nation needed a more secure and permanent storehouse for its natural, artistic, and historical treasures. In 1846 construction began in Washington, D.C., of a towering brick castle on land adjoining the national mall, a

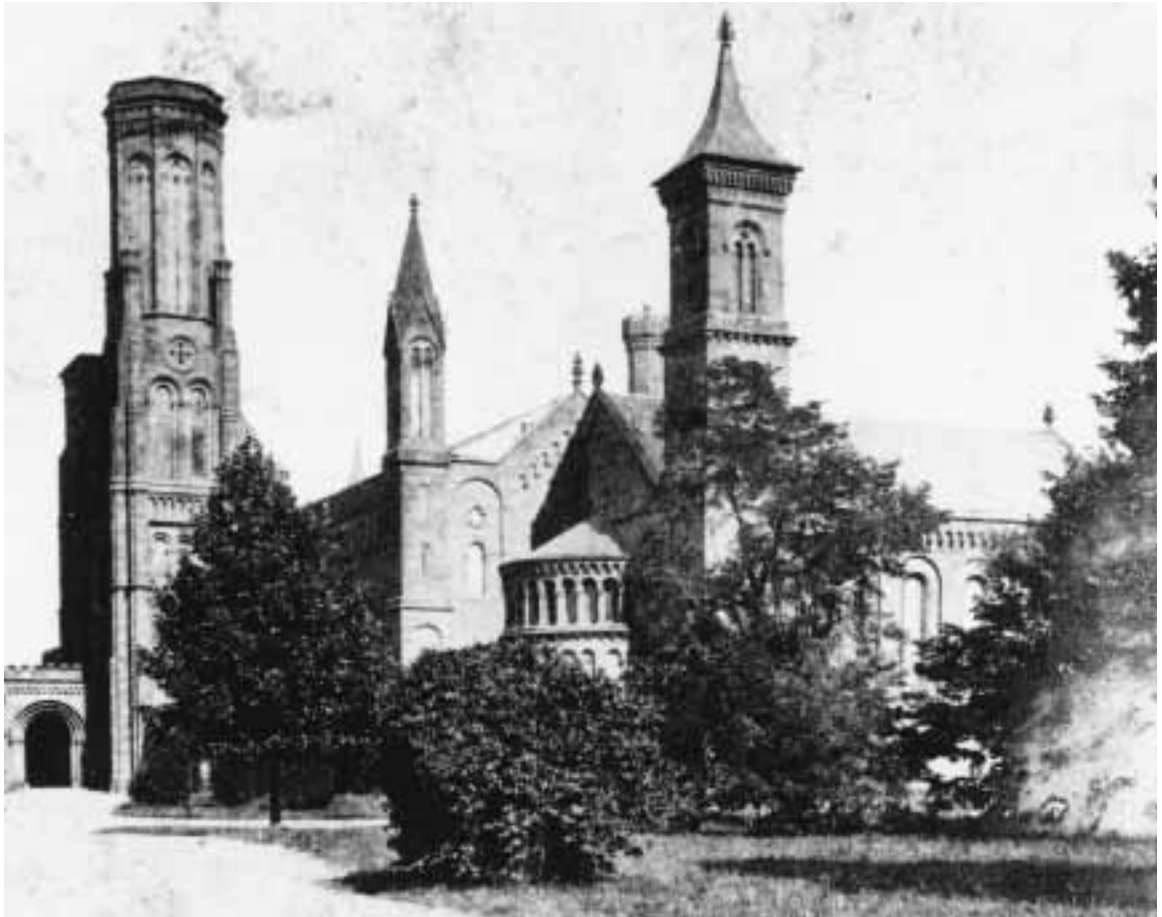


Spencer Fuller Baird helped create and develop the Smithsonian Institution's natural history collection. (*Library of Congress, Prints and Photographs Division [LC-USZ62-86867]*)

building that would soon be crowded with a museum, art gallery, library, and lecture halls, in addition to offices and storage space. Funding for the building came from a \$500,000 bequest left to the government of the United States in 1829 by a wealthy English scientist named James Smithson, who specified that his gift be used for the purpose of establishing a national institution for the “increase and diffusion of knowledge.” The new brick building would be home to what became known as the Smithsonian Institution. The original building

still stands on the mall today, used as an administrative center for the Smithsonian, while newer buildings in Washington, D.C., and elsewhere, including the National Museum of American History, the National Portrait Gallery, and the National Museum of Natural History, house the institution’s ever-expanding artistic, historic, scientific, and natural history collections.

The most important figure in the creation of the institution’s natural history collection was Spencer Fullerton Baird. Born in Reading,



The brick castle seen in this 1880s photograph originally housed the entire Smithsonian Institution. It now serves as the museum’s administrative center. (*Library of Congress, Prints and Photographs Division [LC-USZ62-91468]*)



John James Audubon

THE ARTIST AS PREDATOR

Art and natural history were also closely entwined in the work of John James Audubon. Audubon was born in Haiti in 1785 and raised in France. He moved to the United States in 1803, settling in Kentucky. Audubon had been fascinated by birds since his boyhood, and taught himself to paint so that he could portray their appearance in the wild. He also taught himself to hunt, because in order to paint birds accurately, he needed specimens to study. He became expert at wiring his newly killed specimens into lifelike postures, creating the illusion he was painting his birds from close observation in nature. Audubon traveled widely to collect his specimens, starting with trips on the Mississippi River, then heading westward up the Missouri and the Yellowstone Rivers, as well as exploring the Atlantic and Gulf Coasts.

In 1824 Audubon went to Philadelphia seeking financial support to publish a collection of his bird paintings. He passed himself off as a kind of artistic mountain man, dressing in buckskins and slicking back his hair with bear grease. His extravagant self-presentation failed to win him support from the city's artistic and scientific community, so in 1826 he went to England to try his luck. The buckskins went over better with potential English patrons, and Audubon secured the support he needed for his project.

It turned out to be money well spent. Between 1826 and 1838 Audubon produced his masterwork, *The Birds of America*, featuring life-size colored portraits of more than 1,000 species. The five-volume *Ornithological Biography* followed, with detailed essays on each of the birds depicted in his prints. Audubon's

Pennsylvania, in 1823, Baird attended medical school. His interests in the natural world, inspired in part by his friendship with John J. Audubon, led him away from the practice of medicine to a career as a professional naturalist. In 1850 he joined the Smithsonian as an administrator and served in a variety of capacities for many years. Under Baird's leadership, the institution collected the fruits of western exploration. He saw to it that scientifically trained naturalists and geologists became fixtures on official exploratory expeditions in the mid-19th century. He made available advice and scientific equipment to explorers heading west, maintaining particu-

larly close ties with the leading "topogs" of the Army Corps of Topographical Engineers, such as Gouverneur K. Warren.

Baird's efforts paid off handsomely. As he wrote jokingly to a friend: "I fear I have much to answer for in the way of deluding unsuspecting young (and even old) men to possible destruction from bite of snake, scorpion or centipede. . . . The string of scientific expeditions which I have succeeded in starting is perfectly preposterous." In addition to stuffed animals and birds, skeletons, pelts, snake-skins, eggs, insects, minerals, and fossils, Baird's ever-growing network of official and private collectors sent him a vast collection of

name became permanently linked to bird-watching and appreciation. His paintings proved so popular because, in addition to their accuracy, they also told stories about individual birds—

about their mating habits, their sociability, and, most dramatically, about their lives and deaths. Many of his best bird paintings show predatory birds at the moment they were capturing their prey, such as his golden eagle with a white rabbit in its claws. Audubon seemed to identify with his birds; he was, after all, a kind of predator himself, who killed in order to portray the living beauty of his prey.



John James Audubon spent many years painting and describing birds of North America. (*Library of Congress*)

Native American artifacts. Baird left the Smithsonian in 1871 to become U.S. commissioner of fish and fisheries, but in 1878 he returned to it as secretary (or director), a position he held until his death in 1887.

PAINTINGS

European landscape artists in the 19th century often depicted ancient and medieval ruins in their paintings. The ruined buildings were meant to add historical perspective to the paintings and suggest how much grander and more permanent nature's wonders were than the time-bound achievements of human

civilization. U.S. landscape artists had no ancient ruins to contemplate or add to their own paintings. Instead, their works suggested that nature itself was a kind of holy place, a cathedral in which human visitors were called to worship the splendors of the natural world. U.S. landscape artists of the 19th century intended their art to be uplifting, putting the viewers of their paintings in contact with God's work, his bounty, and some glimpse of his eternal plans.

U.S. artists, and European artists who came to paint in America, felt that the absence of ancient ruins should be seen as one of the glories of America's landscape. The

English-born Thomas Cole, who immigrated to the United States in 1818, became the most popular American painter of his generation. He was one of the founders of the Hudson River school of artists and was known for his epic landscape paintings of both the Hudson River and the Catskill Mountains. Like others in the Hudson River school of painters, Cole was known for his use of light effects, dramatically rendering sunsets, mist rising from waterfalls, and the like. Cole would say that American artists were uniquely blessed because the vistas they painted were, artistically speaking, unplowed land: “[A]ll nature here is new to Art.” America’s “virgin forests, lakes & waterfalls” had been “preserved

untouched from the time of creation for [the U.S. artists’] heaven-favoured pencil.” Cole’s praise for the American landscape contained a hidden warning: American artists should hurry up and capture images of “untouched” wilderness before the wilderness disappeared, victim of the steady westward expansion of the nation.

Among the first American artists to take his “heaven-favoured” pencil across the Mississippi in search of new and virgin landscapes was Titian Ramsay Peale, one of the artist sons of Philadelphia’s Charles Willson Peale. Using his influence in official circles in Washington, D.C., the elder Peale arranged for Titian to join Stephen Harriman Long’s 1819 expedition to



Thomas Cole painted the image depicting the voyage of life from which James Smillie created this engraving. (*Library of Congress, Prints and Photographs Division [LC-USZ62-105878]*)

the Rockies as an assistant naturalist and artist (and arranged at the same time for the Peale Museum to receive the natural and Indian articles collected by the expedition). Before Titian set off for the West, his half-brother Rembrandt sent him some useful advice in a letter:

Get into the habit of making notes of everything as it occurs, no matter how short. Memoranda written at the time has always an interest and accuracy that distant recollections never have. Make drawings of the Indians in their warrior dresses; these will be infinitely more interesting than if made from the dresses put on white men afterwards. Give us some accurate drawings of their habitations. I have never seen one that was decently finished.

Titian Peale was not the only artist on the expedition: He shared the distinction with the English-born Samuel Seymour. The two artists traveled west together, returning east by separate routes (with Seymour accompanying the party that returned via the Arkansas River, and Peale in the party with Major Long on the Canadian River—which they mistakenly believed to be the Red River). Peale and Seymour carried east a rich visual record of the Plains and the Rockies. In addition to landscapes, their works included depictions of Indian tipis and of buffalo hunts that would prove to have lasting influence in shaping the image that white Americans had of Plains Indian life.

DEPICTING AMERICAN INDIANS

Native Americans held a special fascination for some of the best-known U.S. artists of the 19th century. Starting in the early 1820s, and

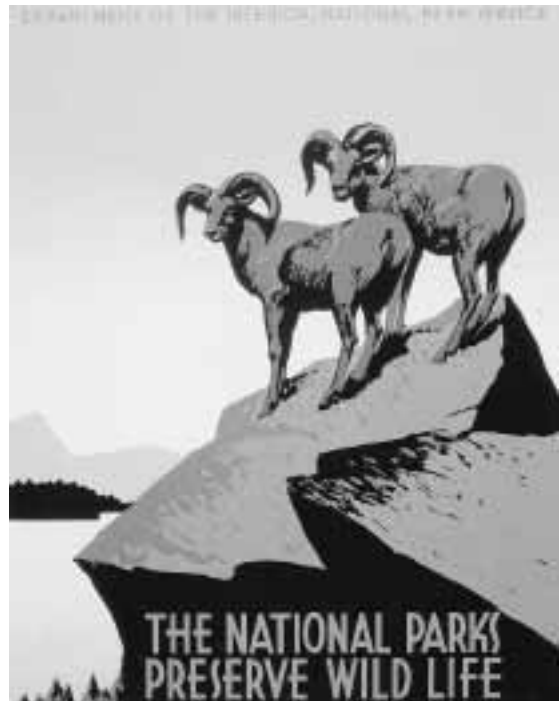
over the next two decades, Charles Bird King, a Washington, D.C., portraitist, painted hundreds of pictures of Indians for the federal Bureau of Indian Affairs. These were reproduced in the three-volume *History of the Indian Tribes of North America*, published between 1837 and 1844. King was fascinated by his subjects and idealized them; his Indian chiefs bore a striking resemblance to the classical depictions of ancient noble Romans. But King's portraits were all of Indians on the white man's territory, usually of visiting delegations of Indian chiefs who came to Washington, D.C., to meet with the "Great White Father" (a title that American Indians were encouraged to use when referring to the president of the United States). Little could be gleaned from these paintings about the Indian way of life on their own ground.

George Catlin was the first U.S. artist after Peale and Seymour who made it his personal mission to depict the Plains Indians on their own territory. Born in Wilkes-Barre, Pennsylvania, in 1796, a region that had only recently ceased being wilderness, Catlin moved to Philadelphia as a young man and made a living as a portrait artist. In 1830 he traveled west in search of new subjects. His first stop was St. Louis, where he met William Clark, who was serving as superintendent of Indian affairs for the Missouri Territory. Peale painted Clark's portrait, a painting that hangs today in the Smithsonian's National Portrait Gallery. Clark encouraged Catlin to seek out Indian subjects along the Missouri River and beyond. In 1831 Catlin made his first venture into the wilderness, traveling up the Platte River with a detachment of U.S. cavalry. The following year, he took a steamboat up the Missouri. Some of Catlin's most memorable paintings of Indians were done in the Mandan and Hidatsa villages located at the confluence of the Knife and Missouri Rivers in present-day North

Dakota, an Indian settlement made famous by Lewis and Clark's journals. Catlin depicted the daily life of the Mandan as well as their burial and religious rituals. His portraits of Indians have been praised for portraying real human beings, not just racial stereotypes. He found much to admire in what he saw, though he deplored the Mandan *Okipa* (sun dance) ceremony, in which young men hung from the roof of Mandan earthen lodges, suspended by skewers inserted in the muscles of their chest, a practice Catlin found "barbarous and cruel." On the whole, though, he believed that Indians lived a life that white men should envy, "free from . . . a thousand cares and jealousies, which arise from mercenary motives in the civilized world."

The memory of the Lewis and Clark Expedition was still very much alive in the villages when Catlin visited in 1832; one of the Indians he painted was Black Moccasin, who in 1804 had been chief of the Hidatsa village where the Shoshone captive Sacagawea had lived before she accompanied Lewis and Clark to the Rockies and beyond. Black Moccasin asked Catlin to pass his regards on to "Red Hair," the Hidatsa name for William Clark.

Continuing his travels in the Plains, Catlin would produce more than 500 paintings and thousands of sketches during the next four years. He drew his subjects from among 50 tribes he encountered, including the Mandan, Blackfoot, Crow, Pawnee, Comanche, Kiowa, and Lakota Indians. Much that Catlin saw on his ventures west sickened him, particularly the wholesale slaughter of the buffalo. The fur companies were enlisting Plains Indian hunters in an enterprise that would doom their way of life. As early as 1833 Catlin called for the creation of a great national park to provide a refuge for the buffalo and for the Indians who hunted them: "A *nation's Park*, containing man and beast, in all the wild and



Yellowstone National Park was the first area to be designated a national park in the United States. Created as part of the WPA Federal Art Project, this poster promotes travel to national parks in the United States. (*Library of Congress, Prints and Photographs Division [LC-USZC2-5639]*)

freshness of their nature's beauty!" he wrote. It was an idea that would take another 40 years to find support in official circles, with the creation of Yellowstone National Park in 1872, by which time the buffalo was nearly extinct.

If he could do little to forestall the destruction of the buffalo, Catlin was determined to do what he could to preserve a visual record of Plains Indian life. He assembled his paintings in a collection he called "Catlin's Indian Gallery," which he took on tours in the eastern United States and in Europe. He tried to sell the collection to the U.S. government, but

despite the enthusiastic backing of Senator Daniel Webster and others, a penny-pinching Congress turned down the deal. After his death, Catlin's Indian gallery would be donated to the Smithsonian.

Karl Bodmer's name is often linked to Catlin as a chronicler of Indian life on the upper Missouri and Plains. Born in Zurich, Switzerland, in 1809, Bodmer was invited in 1833 by the German prince Maximilian of Wied-Neuwied to join a scientific expedition to the western United States. Maximilian was himself an accomplished amateur zoologist, as well as a wealthy man, and he wanted an artist to make a record of the people and the landscape he encountered on his journey. After meeting William Clark in St. Louis, Maximilian's party traveled up the Missouri via steamship and then by keelboat as

far as Fort McKenzie, in Blackfoot country in Montana, before returning to spend the winter of 1833–34 in the Mandan and Hidatsa villages.

While his aristocratic sponsor collected specimens and took field notes, Bodmer produced hundreds of watercolor paintings and pencil sketches, including notable portraits of Indian chiefs, as well as striking landscapes of the sandstone formations that line the upper Missouri River. The party returned to Europe in July 1834. Back home, Prince Maximilian published an account of his expedition entitled *Travels in the Interior of North America*, illustrated by 81 engravings from Bodmer's paintings and sketches. Bodmer never returned to the United States, but most of his paintings of Indians wound up in the Joslyn Art Museum in Omaha, Nebraska.



This 1833 engraving of a Teton Lakota Sioux horse race is based on a painting by Karl Bodmer. (Library of Congress, Prints and Photographs Division [LC-USZ62-105378])

There were a number of other artists at work in those years recording the lives and faces of western Native Americans. These include John Mix Stanley, who accompanied Stephen W. Kearney in his southwest expedition as a member of the Army Corps of Topographical Engineers. He was fascinated by the Indians of the Southwest and set out to record their way of life in his paintings. Most of these paintings, unfortunately, were destroyed in a fire at the Smithsonian in 1865. Other artists

who took western Indians as their subjects in these years include James Otto Lewis, who accompanied many treaty-making parties westward in the 1830s, and whose *Aboriginal Portfolio* was published in 1835–36; the Jesuit missionary Father Nicholas Point, who lived among the tribes of the Rocky Mountains between 1840 and 1847 and whose unpublished journals included hundreds of paintings of Flathead (Salish), Coeur d'Alene, and Blackfoot Indians; and the Irish-born painter



“The Stain on a Painter’s Palette”

SMALLPOX AND THE FATE OF THE PLAINS INDIANS

George Catlin and Karl Bodmer both painted portraits of a Mandan chief named Mato-Tope, or “Four Bears.” Catlin described Four Bears as a man who was “free, generous, elegant and gentlemanly.” Four Bears was an artist as well as a warrior, and a buffalo-skin robe painting depicting his courage in battle was donated to a museum in Switzerland by Bodmer. In 1837 Four Bears became principal chief of the Mandan tribe, which then numbered about 1,600 members. That summer an American Fur Company steamboat arrived that summer at the Mandan villages, unknowingly carrying some white passengers infected by smallpox. The disease spread to those on shore, and two terrible months later, only 125 Mandan remained.

Among those stricken by the epidemic were Four Bears and his family. As the Mandan chief lay dying, he denounced “these dogs the whites” who had promised friendship but brought death to his people. “They have deceived me,” he cried out, “them that I always considered as Brothers.” The epidemic spread across the northern and southern plains in the years that followed, and thousands of Blackfoot, Pawnee, and Crow Indians suffered the same fate as the Mandan.

In his *Letters and Notes on the Manners, Customs, and Conditions of North American Indians*, published in 1844, George Catlin sadly predicted the disappearance of the Plains Indians. Through his sketches and paintings, he wrote, he had tried to come “to their rescue—not of their lives or of their race . . . but to the rescue of their looks and their modes [of life] . . .” The “acquisitive world” of white Americans would “trample them down and crush them to death,” but the doomed Indians “may rise from the ‘stain on a painter’s palette,’ and live again up the canvass and stand forth for centuries yet to come, the living monuments of a noble race.”

Paul Kane who, sponsored by the Hudson's Bay Company, spent the years 1846–49 painting the Indians of the Canadian West, his best work reprinted in his *Wanderings of an Artist among the Indians of North America*, published in 1859.

LANDSCAPE ARTISTS

While Catlin, Bodmer, and others were fascinated by western Indians, other artists concentrated on depicting the western landscape in all its natural glory. Albert Bierstadt, born in Solingen, Germany, in 1830, became one of the most famous western artists of the generation following Catlin and Bodmer. Bierstadt came with his family to New Bedford, Massachusetts, at age two, but returned to Germany as a young man to study painting. A lover of mountains since a visit to the White Mountains of New Hampshire, he decided to go west. On his first western foray in 1858, he accompanied a government expedition led by civilian engineer Frederick W. Lander across the South Pass in the Rockies, and then headed on his own into the Wind River region. He was amazed by the beauty of the western mountains, which he compared favorably to the Alps he had known in Europe, and found the western mountains far superior to those of the northeastern United States. The Rockies “jagged summits,” he wrote:

covered with snow and mingling with clouds, present a scene which every lover of landscape would gaze upon in unqualified delight. . . . We see many spots in the scenery that remind us of our New Hampshire and Catskill hills, but when we look up and measure the mighty perpendicular cliffs that rise hundreds of feet aloft, all capped with snow, we then realize that we are among a different class of mountains.



Albert Bierstadt is well known for his paintings of the American West. (*Library of Congress, Prints and Photographs Division [LC-USZ62-41049]*)

Returning to New York, he turned his sketches of the Rockies into grandiose paintings of western scenes, often highly inaccurate in detail, but that nonetheless proved immensely popular with the public. He returned west in 1863, when he made sketches for paintings of Yosemite Valley, and in 1880, when he visited and sketched the Yellowstone area. Fortune smiled on Bierstadt; One of his paintings of Yosemite sold to a wealthy easterner for \$15,000, the equivalent of \$1.5 million today.

Western Indians appeared in Bierstadt's paintings but were given nowhere near the prominence they had taken in the paintings of George Catlin and Karl Bodmer. The attitudes of white Americans toward western Indians had hardened in the decades leading up to the Civil War. In the 1830s President Andrew



In this painting by Albert Bierstadt, light glows across the California sky as the sun sets. (*Library of Congress, Prints and Photographs Division [LC-USZ62-30532]*)

Jackson adopted a policy of “Indian removal” for the eastern tribes, that led to the expulsion of the Cherokees from their ancestral homes in Georgia in 1838. After the Civil War, the fed-

eral government decided to confine the western tribes to a system of tribal reservations. Samuel Bowles, an influential eastern newspaper editor, declared in an 1869 book, *Our*



New West, that the Indians “are not our equals; we know our right to the soil, as a race capable of its superior improvement is above theirs. . . . Let us say to [the Indians], you are our ward,

our child, the victim of our destiny, ours to displace . . .”

Reflecting these views, and unlike his artistic predecessors, Bierstadt was untroubled by the fate of the Indians who occupied the beautiful landscapes of his paintings. His 1867 painting of settlers heading west across Nebraska, *Emigrants Crossing the Plains*, amounted to a visual endorsement of Bowles’s “victim of our destiny” proclamation. It was and has remained Bierstadt’s most famous representation of the West, notwithstanding its completely fabricated landscape, an unlikely combination of plains and looming mountains. The Conestoga wagons at the center of Bierstadt’s painting had already emerged in American popular imagination as an icon of western settlement. Bierstadt depicted the wagons as being bathed in a golden light that seemingly led them westward, an apparent expression of divine approval. Meanwhile, in the margins of the painting, the tipis of Native Americans can barely be detected, their owners’ ultimate fate also divinely decided. (Ironically, U.S. Army general George Armstrong Custer was one of Bierstadt’s admirers. The dashing cavalryman visited him in New York shortly before departing for his famous battle with the Sioux at Little Big Horn in 1876.)

The landscape artist Thomas Moran was another western painter who amassed fame and wealth in those years. Moran accompanied a government survey party headed by Ferdinand V. Hayden to Yellowstone in 1871 where he sketched the Gardiner River, Mammoth Hot Springs, Liberty Cap, and Tower Fall, among other sites. Moran’s paintings of the Yellowstone region created a sensation when they were displayed in the East: One of his epic landscapes, the seven-by-12-foot *The Grand Canyon of the Yellowstone*, was purchased by the U.S. government for the



Samuel Bowles held the position of editor for the *Springfield Republican*, a prestigious newspaper. (Library of Congress, Prints and Photographs Division [LC-USZ62-39653])

princely sum of \$10,000 for display in the U.S. Capitol. Two years later, Congress authorized another \$10,000 payment for Moran's *The Chasm of the Colorado*, a painting of the Grand Canyon, a site that Moran found deeply stirring: "The whole gorge for miles lay beneath us and it was by far the most awfully grand and impressive scene that I have ever yet seen," he wrote home to his wife. "A sort of suppressed sort of roar comes up constantly from the chasm but with that exception everything impresses you with awful stillness." Moran, who was born in England but immigrated to Philadelphia as a child, believed that America's natural beauty should fill its citizens with the love of their own nation. "That there

is a nationalism in art needs no proof," he would write. "It is bred from a knowledge of and sympathy with [one's own] surroundings and no foreigner can imbue himself with a spirit of a country not his own. Therefore he should paint his own land . . ."

DAGUERREOTYPES

Just as the new technology of railroading created the possibility for transcontinental travel in the 19th century, so the new technology of photography multiplied the possibilities for reproducing the images of distant peoples and landscape. An early form of photography was invented in France by J. M. Daguerre in 1839. In a cumbersome process, a camera would capture an image on a silver-coated copper plate whose surface had been sensitized to light by an iodine wash; the resulting image was then developed by the use of mercury vapor. This process was known as daguerreotyping, and the final product was known as a daguerreotype. The new technology quickly crossed the Atlantic to the United States, and John C. Frémont brought a daguerreotype camera on his expeditions of 1842–43 and 1843–44. Unfortunately, "the Pathfinder" brought no daguerreotypes back with him from his travels; he never seemed to have figured out how to use the camera properly, and eventually lost it. This led German-born cartographer Charles Preuss, who traveled with Frémont, to comment sourly in his diary, "That's the way it often is with these Americans. They know everything, they can do everything, and when they are put to the test, they fail miserably."

U.S. daguerreotypists were more successful in recording the Mexican War, the first war ever to leave behind images from cameras. The cameras were too cumbersome to bring into battle and could not record images in

motion; instead, the daguerreotypists took pictures of subjects that held still for their cameras, such as soldiers standing in formation. Incidental to their work as war correspondents, the daguerreotypists also recorded scenes of southwestern landscape.

In 1850 a government daguerreotypist accompanied a military expedition commanded by Lieutenant Lorenzo Sitgreaves, whose assignment was to survey the borders of the Creek Nation (in present-day Oklahoma).

John Mix Stanley branched out from painting to daguerreotyping when he took part in the Pacific Railroad Survey in 1853, shooting daguerreotype portraits of Blackfoot Indian chiefs he encountered along the survey's northern route—although, like his destroyed paintings, none of these works survived. A professional artist and daguerreotypist, Solomon Nunes Carvalho, accompanied Frémont on his privately sponsored 1853–54 expedition to the Rockies, taking pictures of the landscape and



J. M. Daguerre invented the early, complex form of photography that became known as daguerreotyping. (*Library of Congress, Prints and Photographs Division [LC-USZ62-31490]*)

Indians. Carvalho showed a just-developed daguerreotype to some Cheyenne Indians; seeing themselves in the daguerreotype, they decided that Carvalho was a “supernatural being,” as he later wrote. Carvalho developed some 300 daguerreotype plates during the expedition, only one of which, now in the Library of Congress, survives. But others were copied as engravings that appeared in Frémont’s published memoirs.

PANORAMAS AND PANTOSCOPES

Panoramic paintings were another popular 19th-century attraction. Audiences would enter a room in which a landscape encircled them, providing the illusion, at least to those with a good imagination, of being present at a distant location or at an important historical event. (One of the best-known surviving examples of this kind of attraction is the panoramic painting of the third day of the Battle of Gettysburg by the French artist Paul-Dominique Phillipoteaux, giving the viewer the illusion of standing behind Union lines on the top of Cemetery Ridge as the Confederates charge up the hill toward them, on display at a visitor’s center at Gettysburg National Military Park.) Western landscapes proved a popular subject for panoramas: a panorama commissioned by John Skirving depicting scenes from “Colonel Frémont’s Overland Route to Oregon and California Across the Rocky Mountains” was a huge success when displayed on a tour in the United States and England in 1849–50; in London alone, 350,000 people were estimated to have seen it.

In a panorama, the audience stood and turned to view different sections of the painting. In a pantoscope presentation, however, a seated audience watched while a painted scroll was wound across a stage from one

cylinder to another, accompanied by music and narration. John Wesley Jones’s “Pantoscope of California, Nebraska, Utah, and the Mormons” packed in audiences seven nights a week for six months in a Boston auditorium in 1852–53. The painted scenes in Jones’s pantoscope were based upon more than 1,500 daguerreotypes taken by a team of daguerreotypists the previous year, on a journey eastward from California through the Sierra Nevada, the Great Basin, and the Rockies. It was at the time the most ambitious photographic survey ever undertaken of the American West, and included the first images of buffalo ever captured by a camera. The *Boston Post* enthused that the painted scenes amounted to “One of the most truthful representations of the Plains, Salt Lake and California ever presented to the public . . . a historical work that should be witnessed by young and old.” Unfortunately neither Jones’s pantoscope itself, nor the daguerreotypes on which it was based, has survived.

PHOTOGRAPHY AND STEREOSCOPY

Daguerreotypes could not be reproduced directly, only copied in paintings, engravings, and lithographs. In the 1850s a new technique was perfected, in which cameras recorded images on glass negatives, from which any number of copies could be produced. Thus was born the modern art of photography. One of the first western explorers to employ the new technique was Lieutenant Joseph C. Ives of the Army Corps of Topographical Engineers. Ives took a camera and portable dark-room equipment with him on his 1857 expedition from the mouth of the Colorado River to the Grand Canyon. Only one of the photographs he took, near the mouth of the Colorado, survives.



In this photograph attributed to Mathew Brady, engineers of the Eighth New York State Militia are shown during the Civil War. (*National Archives/DOD, War & Conflict, #143*)

Henry Youle Hind's 1858 Red River expedition enjoyed more success with the new technology. Toronto photographer Humphrey Lloyd Hime accompanied the Hind expedition; his photographs of the Canadian prairie were reproduced in the official expedition report, as well as displayed in galleries, with prints offered for sale to the general public.

Photographers found another way to bring their images to a broader public, through the sale of stereoptic slides. Stereoptic photo-

graphs were taken with a special double-lensed camera, which simultaneously recorded two slightly different images of a subject. Viewed together through a handheld or tabletop stereoptic viewer, stereoscopy created the illusion of looking upon a three-dimensional representation of a scene. Landscape artist Albert Bierstadt was one of the pioneers in this field; he took a stereoptic camera with him on the expedition led by Frederick Lander across the South Pass in the

Rockies in 1859, and the following year offered a stereoptic collection titled “Views in the ‘Far West’” for sale, including pictures of Shoshone and other Indian subjects.

During the Civil War, soldiers on both sides of the conflict rushed to studios to have their photographs taken in uniform before they went off to battle. Battlefield photographers like Mathew Brady created unforgettable images of the carnage of battle at Gettysburg and elsewhere. After the war, professional photographers headed west in search of new subjects. Photographers accompanied the

survey parties that finalized the route for the transcontinental railroad after the war, and recorded its construction. One of the most famous photographic images of the postwar era was Andrew J. Russell’s “East Meets West at the Laying of the Last Rail,” which recorded the moment when the tracks of the Union Pacific and Central Pacific railroads were linked on May 10, 1869, at Promontory Point, Utah. William Henry Jackson was another notable western photographer. He accompanied Ferdinand V. Hayden, the director of the federal government’s U.S. Geological and



On May 10, 1869, the Union Pacific and Central Pacific Railroads met near Promontory Point, Utah, at Promontory Summit to drive in the final spike connecting the two railroads. (*Library of Congress, Prints and Photographs Division [LC-USZ62-116354]*)

Geographical Survey of the Territories, on his Rocky Mountains survey in 1870. Jackson's photographs of the Yellowstone wilderness captured the imaginations of easterners and helped persuade Congress to declare the region the first national park. Notable also are his photographs of Indian tribes such as the Shoshone shortly before the western tribes were forced onto reservations.

THE ART OF WILD WEST NOSTALGIA

In the later decades of the 19th century, the great era of western exploration came to an end. A new western hero was taking the place in popular imagination that had earlier been held by explorers such as John C. Frémont and mountain men such as Jim Bridger. Now it was the turn of the cowboy to be celebrated, in pulp fiction and touring "wild west" shows, as an example of manly courage and rugged individualism on the frontier, a loner bound by a code of honor riding through a dangerous land. Between 1866 and 1886, millions of cattle grazing on open rangelands in Texas and the Great Plains were rounded up by the workers who became known as cowboys. Then cows and the men hired to herd them on horseback would set off on the long trail drives to fabled Kansas cattle towns like Abilene, Wichita, and Dodge City, where they could be loaded on railroad cars and taken east for slaughter. The era of the cowboys lasted only about 20 years; afterward, the barbed-wire fencing of the open range, and the expansion of the railroads, made the trail drive unnecessary. But in those 20 years they provided an enduring set of images that for years to come helped define not only the western experience but the American character.

Although many of the cowboys were former Confederate soldiers, the workforce in the

western cattle industry was drawn from many sources. Perhaps as many as one in four cowboys were African American, and another one in four were Mexican American. There were Native American cowboys as well. None of them seemed to make much impression on the popular imagination. The cowboy who lived on in the nation's mythology was a white man whose skill with a six-gun gave him the power necessary to tame a savage land and its dark-skinned inhabitants. This image of the cowboy was, in its early days, largely the creation of the artist Frederic Remington, who despised Indians and other nonwhites as racial inferiors deserving subjugation by white Christians.

Remington, born in Canton, New York, in 1861, came west as a journalist in the 1880s, in the glory days of the cattle drives. As a reporter for *Harper's Weekly* and other eastern magazines, he covered the U.S. Army's campaigns against the Apache and Lakota. Calling on skills as an artist that he had honed at the Yale School of Fine Arts, he provided illustrations as well for his stories. He made no secret of his sympathies in his writings or his artwork; his illustration of the 1891 Battle of Wounded Knee (which he knew only by secondhand accounts) made it seem as if the U.S. cavalry had withstood an assault by a fierce enemy, even though in the actual event the "battle" was really a massacre by the U.S. Cavalry of Lakota men, women, and children. Despite their inaccuracies, Remington's works were extremely popular. Sales of his paintings and his bronzes, including his 1895 sculpture the *Bronco Buster*, made him a wealthy man. Remington's imagery and prejudices would have a lasting influence, in the form of countless cowboy-and-Indian movies turned out by Hollywood in the first half of the 20th century.

The triumph of the "wild west" school of western art marked an ironic end to a century

of attempts to depict the land and people of the western United States. The first white artists to travel in the West, such as Titian Ramsey Peale and George Catlin, had done so in a spirit of scientific and artistic inquiry; they were not free from the prejudices of their own society, but they found much to admire

in the Native American culture they depicted in their paintings. By the end of the 19th century, a very different spirit prevailed. Artists such as Frederic Remington did not go west to celebrate the land and its peoples; they went to celebrate its conquest.

JOHN WESLEY POWELL

The Scientist as Explorer



John Wesley Powell devoted his life to science and to public service. He was a teacher, a soldier, a geologist, an ethnologist, a government administrator, a conservationist, and one of the greatest U.S. explorers of the 19th century. He was, above all, a man driven to explore what he referred to as the “Great Unknown.” As he said of the Colorado Plateau, the region of the United States with which his name would be closely linked during his lifetime and afterward, “[T]he thought grew in my mind that the canyons of this region would be a book of revelations in the rock-leaved Bible of geology. . . . I determined to read the book.”

READING THE ROCKS

Early explorers of the American West paid scant attention to geology, the study of the Earth and the processes that have shaped its surface and subsurface in the past and continue to reshape it in the present. Thomas Jefferson was a man of science, but he was

chiefly interested in the practical improvements in human life that science had to offer, rather than a broader or more abstract inquiry into the origins of natural phenomena. Thus, in his 1803 letter of instructions to Meriwether Lewis, he asked him to make note of the mineral resources of the lands he was going to explore, but expressed no interest in finding out the origins of such mineral deposits. Jefferson sent Lewis to study with the nation’s leading botanist, physician, and astronomer in preparation for his journey, but Lewis consulted no geologist. Indeed, it would have been difficult to find one, because geology was a science in its infancy at the start of the 19th century.

Prior to the 19th century, the study of the Earth’s origins was the domain of biblical scholars. According to the book of Genesis in the Bible, God had created the Earth in just seven days. The Bible said nothing about the timing of that act of creation, but biblical scholars had decided that it was probably about 4,000 years before the birth of Christ,



Thomas Jefferson encouraged the scientific endeavors of the Lewis and Clark Expedition. Meriwether Lewis sent Jefferson artifacts as the expedition encountered peoples, animals, and plants new to them. (*Library of Congress, Prints and Photographs Division [LC-USZ62-23011]*)

making the Earth less than 6,000 years old at the start of the 19th century.

But by then an alternative theory of the Earth's origins was beginning to find adherents in scientific circles in Europe. Scientists reasoned that the features of the Earth visible to the human eye had been produced by the workings of the natural world over an immensely long period of time. Volcanic eruptions, the movement of glaciers, the erosion caused by rivers, wind, and annual cycles of freezing and thawing, among other natural phenomena, had changed and were continuing to change the Earth's surface, in ways that could be observed, measured, and predicted.

Most early geologists were devout Christians, but felt that an overly literal reading of Scripture could not be reconciled with the evidence provided all around them in the natural world. The new science of geology argued that the Earth was immensely old—perhaps, 19th-century geologists argued, tens of millions of years old, rather than 6,000 years old. (The development of radiometric tools in the 20th century allowed geologists to arrive at a more exact and staggeringly greater age for the Earth—about 6 billion years.) The Earth, geologists argued, was also a work in progress, a living laboratory where the processes that had shaped the planet in the past could still be seen at work in their never-ceasing modification of its surface. Landscapes, rock strata, channels of rivers, and fossil remains could be “read,” as John Wesley Powell would later suggest, as a history of the Earth's evolution.

In the years after the Lewis and Clark Expedition, geology found a foothold in the United States. Geological exploration found sponsors among budget-minded politicians, as it became clear that abstract knowledge about the Earth's origins could be put to practical use. Starting in the 1820s, a number of state legislatures in the East appropriated funds for geological surveys to spur the development of agriculture and various internal improvements, such as canals. In 1834 the U.S. Congress authorized the army's Topographical Bureau to add geological investigations to its other responsibilities. In 1840 the first professional organization of geologists, the Association of American Geologists, was founded. The discovery of gold in California and silver in Nevada in the 1840s and 1850s greatly increased federal interest in geological exploration: There were riches to be had in learning how to read correctly the Earth's surface and subsurface.

THE MAKING OF A GEOLOGIST

John Wesley Powell was born in the village of Mount Morris in western New York on March 24, 1834, the fourth child of British immigrants Joseph and Mary Powell, his mother English, his father Welsh-born. “Wes,” as he was called as a child, was named for the 18th-century British preacher John Wesley, the founder of the Protestant denomination of Methodism. Wes’s father, Joseph, was a Methodist preacher, as well as a tailor, farmer, and investor. Joseph Powell was also a restless man, always on the lookout for a better opportunity for himself and his family. In 1838, when John Wesley Powell was four years old,



Among his many other accomplishments, John Wesley Powell explored and mapped the Rocky Mountain region during his geographical and topographical survey. (*National Archives, Still Picture Records NWDNS-106-IN-218*)

he and his family moved west to a new home in Jackson County, Ohio.

Wes was the oldest surviving son in the family (an older brother died at age two). Joseph hoped the boy would follow his own calling as a Methodist minister. But John Wesley Powell’s interests led him in a very different direction. His father’s fervent opposition to slavery would have a large impact on his life. In the 1830s and 1840s abolitionists, or those believing slavery should be abolished, were considered dangerous radicals, even in northern free states such as Ohio. Joseph Powell’s abolitionism made him unpopular with many of his neighbors and led to his son being bullied in the local public school. So young John Wesley Powell was sent instead to study with George Crookham, a friend of the Powells, a self-educated retired farmer who was known as “Big George” because he weighed about 350 pounds.

Crookham was an abolitionist, like the Powells, and his farm was known as a stop on the Underground Railroad, the network of northern abolitionists who secretly helped slaves escape from the South to freedom in Canada. Crookham was an amateur naturalist who had his own little museum, filled with plant, animal, and fossil specimens, as well as Indian artifacts. Crookham gave his student thick books of philosophy and history to read, but also took him on long walks in the Ohio countryside to observe the natural world. Thanks to Crookham, John Wesley Powell became a convert to the study of nature.

When the hostility of their Ohio neighbors grew too much to endure, the Powells moved again, in 1846, to Walworth County, Wisconsin. John Wesley Powell was 12 years old. He now had to give up his education to take on a grown-up’s share of the work in running the family farm. But life as a farmer, he soon decided, was not for him. He left home at age

16 for a year of schooling at a local school in Janesville, Wisconsin.

Despite his patchy schooling, by age 18 John Wesley Powell was teaching in a one-room schoolhouse in Wisconsin, and moved to another teaching position in Illinois in 1855. He taught himself while instructing his students, staying one book ahead of them. Deciding he needed to go back to school himself, he enrolled at Illinois College in Jacksonville, Illinois, where he studied the sciences, Greek, and Latin, as well as practical subjects like surveying. In 1857 he transferred to the Illinois Institute at Wheaton, Illinois, the town where his family had moved in the meantime. The following spring he transferred again, to Oberlin College in Ohio. The school was a hotbed of radical abolitionism, which Powell approved of, but it was weak in natural sciences, which led him to drop out soon afterward. He tried one more term at the Illinois Institute, and then left college for the last time, without ever having earned a degree. Nonetheless, by the standards of 19th-century America, his three years of college instruction placed him among the ranks of the highly educated. He took a job teaching school in Hennepin, Illinois, in 1859, and within a year, at the still-tender age of 26, he had been promoted to school principal.

John Wesley Powell had grown into a strong and energetic young man who for all his scholarly inclinations loved to be outdoors. Between the years of 1855 and 1858 he took annual summer trips along the riverways of the Midwest, rowing himself along the Mississippi, the Ohio, and the Illinois Rivers, rambling as far north as Wisconsin and as far south as New Orleans. He had developed a particular interest in freshwater mollusks, and gathered specimens of their shells on his journeys. In 1858 he became a curator of conchology for the Illinois State Natural History

Society, where his assignment was to gather and classify mollusk shells of the Illinois region. He was elected secretary of the Illinois State Natural History Society in March 1861.

MAJOR POWELL

Powell's scientific studies were interrupted soon afterward by the war that would decide the fate of slavery in the United States. Less than a month after rebels had fired on Fort Sumter in South Carolina, John Wesley Powell responded to President Abraham Lincoln's call for volunteers to defend the Union. On May 8, 1861, he enlisted as a private in the 20th Illinois Infantry. His army records describe him as "age 27, height 5'6 1/2 tall, light complected, gray eyes, auburn hair, occupation—teacher." He rose quickly through the ranks before seeing combat, was elected sergeant major of his regiment by his fellow soldiers, and then was promoted to lieutenant when the Illinois Infantry officially became part of the U.S. Army. Just as he had studied to become a natural scientist, now he studied to become a warrior, devoting himself to reading army manuals, from which he learned military engineering and tactics. The eager young lieutenant caught the eye of General Ulysses S. Grant, who promoted Powell to the rank of captain, commanding Battery F, of the Second Illinois Artillery Volunteers. On April 6, 1862, Powell and his men were with Grant at a little town along the Tennessee River in southeast Tennessee called Shiloh when they were attacked by Confederates. Powell's unit helped beat back the rebels and save Grant's army from disaster. But in the midst of the battle, Powell was struck in the right wrist by a minié ball fired from a Confederate musket; the bullet shattered the bones in his right arm all the way up to the elbow.

Powell was one of the 20,000 casualties the two sides suffered that day, in one of the war's bloodiest encounters. Two days later an army surgeon amputated his right arm just below the elbow. Many battlefield surgeries led to infection and death, but Powell was lucky. He

had lost an arm, but he would live. He was nursed back to health by his young wife, Emma, whom he had married while on leave from the army the previous year. He pinned up the right sleeve of his uniform jacket so that it would not dangle empty below the



By 1864, Ulysses S. Grant was commander of all Union soldiers in the Civil War. In this photograph, taken during that year, Grant poses while stationed at Cold Harbor, Virginia. (*National Archives/DOD, War & Conflict, #122*)

elbow, a reminder to all who met him of the sacrifice he had made for his country. Powell could have easily and honorably spent the rest of the war in safety, but instead returned to his unit in 1863. Taking part in many of the decisive battles that the Union army fought in the West, he was promoted to major and retired from the army in January 1865 with the rank of brevet lieutenant colonel. For the rest of his life he would be addressed as “Major Powell.”

POWELL DISCOVERS THE WEST

In 1865 John Wesley Powell accepted a position as professor of science at Illinois Wes-

leyan University, in Bloomington, Illinois. He taught not only geology, which had become his own favorite among the sciences, but chemistry, botany, zoology, and other scientific subjects. The following year he moved on to a position as professor of geology at nearby Illinois State Normal University, a more desirable teaching post because he could concentrate on his interests in geology. Like his childhood teacher, George Crookham, he took his students out into the field to gather fossils, minerals, and plants. Securing funding from the Illinois state legislature, he became curator of the newly established museum of the Illinois Natural History Society, based in Bloomington.



In 1867 Powell led an expedition across the Great Plains to the Colorado Rockies, the snowy peaks visible in this contemporary photograph. (*National Park Service*)



Although many explorers had visited the Rockies before Powell, the mountains still challenged Powell's expedition. Elevations in present-day Rocky Mountain National Park range from 8,000 to 14,259 feet. (*National Park Service*)

But Powell did not intend to spend the rest of his life in the comfortable confines of a college lecture hall, even if he could take the occasional local field trip to liven things up for himself and his students. Gathering freshwater mollusk shells along the Illinois River, the adventure of his youth, had come to seem a tame pastime to the veteran of Shiloh. He looked toward more distant horizons, professionally and geographically. He decided to make his mark as an explorer of the remaining blank spaces on the western map of the United States.

In 1867 he set off on his most ambitious field trip yet, following in the footsteps of Zebulon Pike, Stephen H. Long, and John C. Frémont to Colorado's Rocky Mountains. Among his other talents, Powell found he had

a gift for fund-raising. To pay for the expedition, he secured about \$1,000 in grants from midwestern academic and scientific institutions, threw in some of his own money, and obtained free passage from the railroads to Council Bluffs, Iowa, on the Missouri River, which was as far west as the Union Pacific railroad had reached in 1867. A trip to Washington, D.C., in April to secure congressional funding proved disappointing; he did not yet have the reputation or contacts he would need for success in that important arena. But his old army commander, Ulysses S. Grant, who had become secretary of war, arranged a deal through which Powell could buy provisions for his expedition at reduced rates from western army posts. The Smithsonian Institution lent scientific equipment to the expedition. In

return, Powell promised to gather plant and animal specimens for his sponsors.

In May 1867 Powell's expedition set off westward across the plains on horseback and in horse-drawn wagons from Council Bluffs, Iowa. His party of 12 included friends, students, and family members, among the latter his wife, Emma, his brother Walter, and his brother-in-law Almon Thompson. They were all new to the West, and an unlikely team of explorers. The trail to the Colorado Rockies had become a well-traveled route since the days when Pike and Long had first headed west. However, the fact that they came armed with repeating rifles and revolvers was evidence that this remained possibly dangerous territory. Before their departure they had been warned of troubles on the frontier, and en route to Colorado they bumped into soldiers commanded by George Armstrong Custer who were in pursuit of Indian quarry.

Two days after Independence Day Powell's party arrived in Denver. They headed into the Rockies on a southerly route that took them to the slopes of Pike's Peak, which they climbed on July 27–28. They descended to South Park, where they spent several weeks gathering animal, plant, and mineral specimens, then climbed another mountain, 14,235-foot high Mount Lincoln. While the expedition had been sold to its backers as vital to the acquisition of scientific knowledge, it was really more of a glorified vacation than anything else, although the specimens they gathered would look good on the shelves of various Illinois museums.

By September most of the party had left for points east. Powell and his wife remained in Colorado, heading up to Middle Park in the Rockies. There they met a transplanted midwesterner, Jack Sumner, who ran a trading post in Hot Sulphur Springs. With Sumner, Powell began to consider the idea of a real

venture into the unknown, a trip by boat down the Green River to the Colorado, all the way to its mouth on the Gulf of California. That expedition would have to wait until Powell raised more money and recruited more explorers. But he did visit the headwaters of what was then known as the Grand River, later renamed the upper Colorado River, his first glimpse at the waters that would make him famous.

THE 1868 EXPEDITION

In summer 1868 Powell headed west again with a party of 20, including his wife Emma and brother Walter. This time they were able to travel by train all the way to Cheyenne, Wyoming, a measure of the progress made in the construction of the transcontinental railroad since the previous year. They reached Denver on July 14, and headed up across 11,000-foot-high Berthoud Pass into Middle Park. Once again they gathered specimens, and once again took time out for mountain climbing. This time Powell and some of his party made the first ascent of 14,255-foot Long's Peak, reaching its summit on August 23. They raised the U.S. flag atop the mountain and passed around a ceremonial bottle of wine. From the summit of Long's Peak Powell could look out on Grand Lake, headwaters of the Grand River, winding its way westward toward its junction with the Colorado.

There was more trouble with the Indians in Colorado that summer; Arapaho and Cheyenne raiding parties had attacked white ranchers, as well as the local Ute Indians. Powell made friends with the Ute, gathering tribal artifacts to bring back east and studying their language.

At the end of August Powell's party had a chance encounter at Hot Sulphur Springs with another group of visitors from the East. This party included the Speaker of the U.S. House

of Representatives, Schuyler Colfax, nominated that year for the vice presidency on the Republican ticket, along with presidential candidate Ulysses S. Grant. Another member of the group was Samuel Bowles, the influential editor of the western Massachusetts newspaper the *Springfield Republican*. Around a campfire one night, Powell told Bowles about his plans, to devote the next summer to

exploring the Colorado River. Bowles telegraphed back to his newspaper a glowing account of Powell's project. "The great and final object of the expedition," Bowles wrote, "is to explore the upper Colorado River and solve the mysteries of its three hundred mile canyon." Bowles described the Grand Canyon as a place of mystery and danger, "with perpendicular walls of rock averaging three



Powell met Ute Indians as he traveled through present-day Utah during some of his expeditions. In this 1874 photograph taken by John K. Hillers during Powell's later geological survey, two Uinta Ute in northwest Utah, identified as "a warrior and his bride," pose on horseback. (*National Archives, Still Picture Records NWDNS-57-PE-110*)

thousand feet high, up which no one can climb, down which no one can safely go, and between which in the river, rapids and falls and furious eddies render passage frightful.” As for Powell, Bowles declared he was the ideal person to undertake the adventure of

conquering the Grand Canyon, being “well-educated, an enthusiast, resolute, a gallant leader.” Bowles’s glowing report would go a long way toward establishing John Wesley Powell’s reputation as a heroic explorer in the mold of Lewis, Clark, and Frémont, even

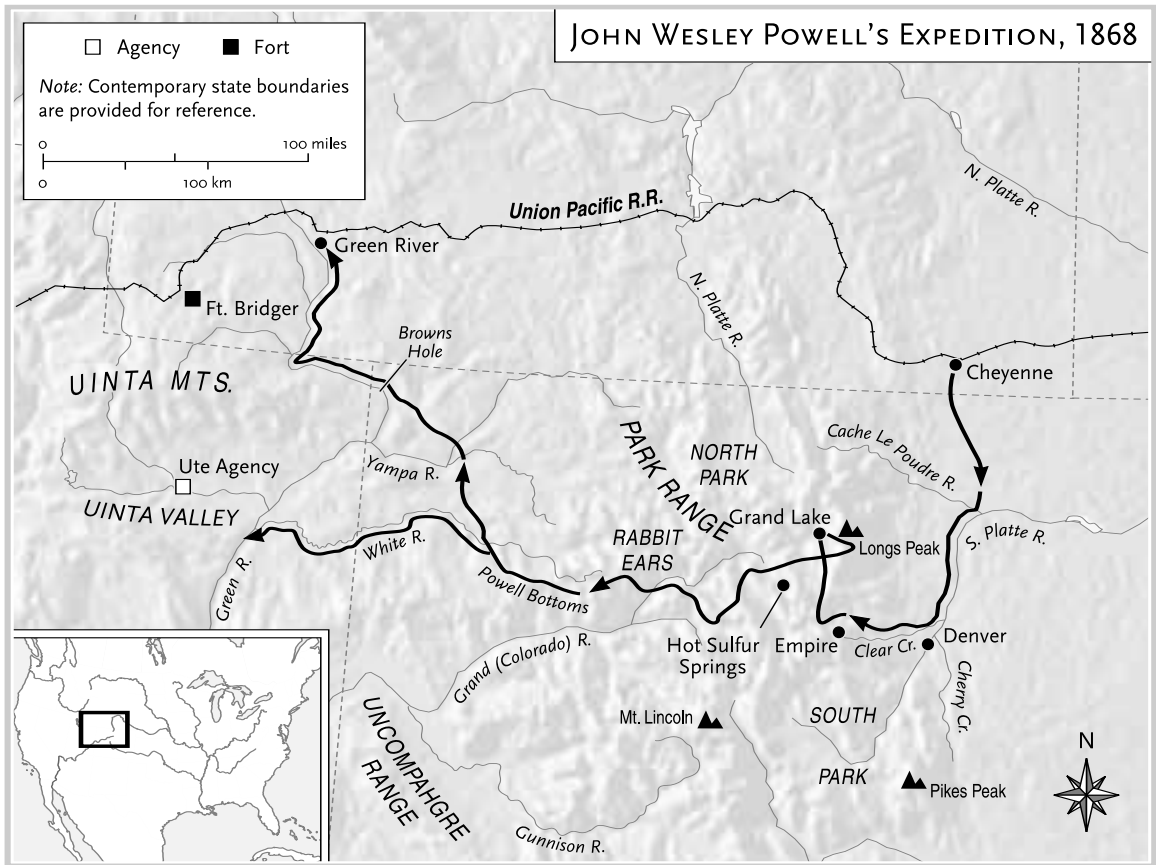


The Bureau of Ethnology

From his first encounter with the White River Ute in 1868, Powell was fascinated by western Indians. The Indians seemed to find him an interesting and sympathetic friend. To the Ute Powell was known as Kapurats, or “One-Arm-Off.” In spring 1873 he traveled on a temporary assignment from the Bureau of Indian Affairs to investigate the conditions of the Great Basin Indians and encourage them to move to government reservations. Among the Indians, he worked as scholar as well as diplomat. Powell was accompanied by photographer John K. Hillers, who took some of the most striking photographs of southwestern Indians. Powell collected vocabularies and myths of Ute, Paiute, and Nevada Shoshone Indians, and in 1877 published a manual for ethnologists interested in working in the West entitled *Introduction to the Study of Indian Languages*.

On his mission in 1873 Powell found that the Indians were reluctant to move to reservations, which were often located in barren regions far from their traditional homelands. Powell believed that, given the steady advance of white settlers into the West, the Indians had no choice but to move off their ancestral lands and give up their traditional way of life. But unlike many white Americans of the era, he did not regard the Indians as racial inferiors deserving of extermination, and he was genuinely interested in their culture and their welfare. He believed, as he wrote in 1875, that the Indians would be “gradually absorbed, and become a part of more civilized communities.”

In 1879, at Powell’s urging, Congress created the Bureau of Ethnology as part of the Smithsonian Institution, with Powell serving as its director from that year until his death in 1902. Powell’s chief contribution was as an administrator, rather than a scholar. Assembling an able staff, he gathered a vast amount of information about the western tribes. He published the first systematic classification of Native American tribal vocabularies. The photographers who accompanied him and others on expeditions left a stunning collection of images of Southwestern Indians. In the judgment of Herman Viola, a historian who for many years headed the Smithsonian’s National Anthropological Archives, which inherited the materials Powell and his fellow ethnologists gathered in the 19th century, Powell was responsible for gathering “one of the world’s most important research collections on the Indian tribes of North America.”



before he had actually done any genuine exploring.

As with the previous expedition, at summer's end some of Powell's party headed home, but Powell and others remained. They built cabins and established winter quarters along the White River, an area since known as Powell Bottoms, near present-day Meeker, Colorado. During the winter Powell traveled south, to the Grand River and the White and Green rivers, planning his trip down the Colorado. He gathered more specimens and continued his study of the language and customs of the Ute. In spring 1869 he headed home to Illinois to order some boats built in Chicago.

POWELL'S TRIUMPH

He went back west in May, with his new boats and his new party of explorers. He sailed down the Colorado and into the spotlight of national acclaim, where he was to remain for the rest of his life. The news of the expedition's success was telegraphed to the eastern newspapers, and in the first week of September 1869 Powell became a national hero. His triumphant emergence from the depths of the Grand Canyon seemed all the greater because rumors had surfaced in the press earlier that summer that he and all his party had been swept away by the river's rapids and would never be seen again.

Powell capitalized on his fame, offering stirring lectures about the trip and later writing about it in magazine articles and books. All this helped his family finances considerably. It also gave him the influence he needed to undertake a thorough study of the geology of the Colorado Plateau region. Although the boat ride down the Colorado had been a great adventurous feat, the expedition yielded meager scientific results. Powell had been forced to abandon many of the specimens he had gathered en route, as his little fleet went from four boats to three, and then to two. He had also made the entire journey in just three months, instead of the much longer time he had initially planned to spend on the river. The first trip down the Colorado was a preliminary reconnaissance, rather than the systematic survey Powell had hoped to accomplish in 1869. That would have to wait for later trips.

THE GREAT SURVEYS

While Powell had been exploring the Colorado under private auspices, the U.S. government had decided to sponsor a series of official geological surveys of the West. As Clarence King, leader of one of these surveys would later comment, 1867 was the year when geology “ceased to be dragged in the dust of rapid exploration and took a commanding position in the professional work of the country.”

In 1867 King, a 25-year-old graduate of Yale University, was appointed director of the Geological Exploration of the Fortieth Parallel, a federally funded survey of a vast swath of territory from California’s Sierra Nevada eastward to the Colorado Rockies. That same year, Doctor Ferdinand V. Hayden, a graduate of Oberlin College and the Albany Medical College, was placed in charge of a geological survey of Nebraska, with its field of exploration

later extended to Wyoming and Colorado, a project designated the Geological Surveys of the Territories of the United States. Lieutenant George Wheeler, an army engineer and West Point graduate, received authorization in 1871 to lead an expedition exploring Nevada, and later Arizona, in what was officially designated the U.S. Geographical Surveys West of the One Hundredth Meridian. This was the most ambitious, if loosely coordinated, attempt by the federal government to explore the West since the Pacific Railroad surveys of the 1850s.

On July 12, 1870, Congress passed a bill appropriating the sum of \$10,000 to allow John Wesley Powell to carry out his own survey of the Colorado region, the first support he had gained for his efforts from the federal government beyond the provision of cheap or free military rations. He was not officially employed by the government; however, he drew no salary from expedition funds and until 1872 continued to hold the formal status of professor of geology at Illinois Normal, though he was not to be found in the university’s classrooms. Powell’s survey was the fourth in the field and carried the official designation of Geographic and Topographical Survey of the Rocky Mountain Region.

In the late summer and early fall of 1870 Powell returned to Colorado, making a scouting expedition along the northern rim of the Grand Canyon, choosing places to cache supplies for the following year’s expedition and making friendly contact with local Indians (including the Paiute band who may have killed the three men who had abandoned the 1869 expedition).

THE 1871–1872 EXPEDITION

On May 22, 1871, Powell set off once again from Green River Station in Wyoming down



American geologist Clarence King directed the Geological Exploration of the Fortieth Parallel. (*Library of Congress, Prints and Photographs Division [LC-USZ62-42767]*)



Clarence King and the Great Diamond Hoax of 1872

The discovery of gold at Sutter's Mill in 1848 had set off a gold rush and established the reputation of the American West as a place where one could get rich quick. Some dug riches out of the ground; others dug wealth out of the gullible. Two champions at the latter strategy, cousins John Slack and Philip Arnold, walked into a San Francisco assay office in 1872 with a bag full of diamonds, rubies, emeralds, and other precious stones. William Ralston, president of the Bank of California, heard about these two ragged prospectors and their sudden wealth and tracked them down. With apparent reluctance, Slack and Arnold were talked into bringing a mining engineer employed by Ralston along with them to a secret site where, they said, they had dug up the gems. They took him, blindfolded, on a four-day ride into the wilderness. When the blindfold was removed, Ralston's man was astonished to find that gems actually littered the ground and diamond dust lay in piles like anthills. He hurried back to San Francisco to tell Ralston the great news. The banker and his partners raised millions of dollars from investors to exploit the find, paying off Slack and Arnold with a one-time fee of \$660,000 (worth about \$8 million today).

When geologist Clarence King heard about the find, he figured out that it must be somewhere in the vicinity of Brown's Hole on the Colorado. He made his way to the site, and found, sure enough, it was littered with diamonds and other gems. Unfortunately, as he noted, some of the diamonds were polished. As one of King's companions is supposed to have said: "This is the bulliest diamond field as ever was! It not only produces diamonds, it cuts them!" Alas for the investors, the natural processes of the Earth do not produce cut diamonds. Slack and Arnold had salted the site with diamonds they had bought in London, and played Ralston and his investors for fools. The investors lost their money and Ralston drowned himself in San Francisco Bay. Clarence King was widely praised for exposing the hoax, and he was popularly known as "the King of Diamonds."

the Green River toward the Colorado. This time his expedition consisted of 11 members traveling in three boats. Powell's brother-in-law, Almon Harris Thompson, who had been with him on the 1867 expedition, was one of three topographers on the 1871 expedition. Thompson served very ably as Powell's second-in-command. A fledgling artist, 17-year-old Frederick Samuel Dellenbaugh, accompanied the expedition, as did veteran photographer E. O. Beaman.

Powell's pilot boat was once again named the *Emma Dean*, after his wife. Powell sat amidships in a chair, sometimes reading aloud to his men from Sir Walter Scott's romantic novel of medieval derring-do, *Lady of the Lake*. The expedition proceeded downriver at a much more deliberate pace than it had in 1869, taking four and a half months to travel from Green River Station to the foot of Glen Canyon, a distance the 1869 expedition had covered in just two months. In the Lodore

Canyon they passed the wreck of the *No-Name*, the boat Powell's expedition had lost in the rapids in 1869, but this time they sailed through the canyon without incident. The expedition stopped to resupply at the Uinta Indian agency. In 1869 Powell had praised the Ute Indians' attempt at wheat farming in the arid uplands of their reservation, but this time Powell's companions were unimpressed. "The Indians do not make good agriculturalists," Almon Thompson decided.

While Powell explored neighboring canyonlands on horseback that summer and made side trips to Salt Lake City. Thompson took command on the water. Powell met up again with his men in the boats at the end of August at Gunnison's Crossing. He sailed downriver as far as the Crossing of the Fathers,

then set off again overland, while his men made further progress to the mouth of the Paria River, to be named Lee's Ferry, where they cached the boats for the winter and headed to their winter camp at Kanab. On horseback, Powell and some of the party surveyed the land north of the Grand Canyon in southern Utah and Arizona, including the region that would later become Zion National Park, before Powell headed off to Washington in early 1872 to lobby for additional funding for his survey.

Powell rejoined the men on the river the following August, sailing from Lee's Ferry to the mouth of Kanab Creek, deep in the Grand Canyon, where unusually high waters and leaky boats forced them to abandon the river. The 1871–72 expedition was nowhere near as



Located along the Green River, in present-day Wyoming, Green River Station was the first camp of John Wesley Powell's 1871 expedition. (*National Archives, Still Picture Records NWDNS-57-PS-471*)



In a photograph taken by John K. Hillers, Powell's boat, *Emma Dean*, rests on the bank of the Colorado River with rope holding his chair in place. (Library of Congress, Prints and Photographs Division [LC-USZ62-104700])

dramatic as Powell's first trip down the Colorado in 1869, but its scientific achievements were far more substantial, including the discovery of the last unknown river in the United States, the Escalante. Almon Thompson completed a topographic map of the region in February 1873, the first detailed mapping of the Green and Colorado Rivers. E. O. Beaman's photographs, and those taken by his successor on the expedition, a young recruit named John K. Hillers, provided a memorable visual record of their travel through the Grand Canyon, including the first photographs ever taken from the canyon's floor, while Frederick Dellenbaugh painted the first pictures of the canyon.

THE WASHINGTON YEARS

Powell's frequent absences from the 1871–72 expedition reflected his new role as a scientific administrator. He bought a home in Washington, D.C., in 1872, and his trips to the field grew fewer and far between. Increasingly he supervised the work of other men from offices in the nation's capital. He was becoming something new in the history of exploration: a professional scientific administrator, whose real work was accomplished in congressional hearing rooms rather than on remote frontiers.

In the late 19th century there was no federal income tax, and the federal budget was tiny. Apart from running the postal system, collecting customs duties in seaports, and maintaining a small military establishment, the federal government neither offered nor sought to offer many services that would affect the lives of ordinary Americans. U.S. economists and politicians alike subscribed to the theory of laissez-faire economics, the belief that government should not interfere in any way with the natural workings of the economy, lest it hamper private initiative.

Powell did not give much thought to economic theory, but his experiences and observations in the West led him to become an early proponent of federal land use regulation. At the request of Secretary of the Interior Carl Schurz, Powell undertook a study in the 1870s of the problems of settlement and agriculture in western lands, and published his findings in 1879 as the *Report on the Lands of the Arid Regions of the United States*. By "arid lands," Powell meant the region of the West where less than 20 inches of rain fell annually—a description that included two-fifths of the United States, including much of the territory to the west of the 100th meridian, the line on the map that bisects the states of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas. Settlers were pouring into this region in the 1870s, encouraged by the 1862 Homestead Act, which provided free parcels of 160 acres of public land to settlers to farm. Powell thought that the new farms would prove disastrous for the land, and for the settlers, unless the federal government set up special rules for the development of the arid region. He was a great admirer of the Mormons, who preached and practiced "stewardship" of the land, making collective rather than individual decisions about important questions such as water use.

Powell was not an advocate of big or intrusive government, but he did believe in planning. He advocated the creation of a land classification system, and of irrigation and pasturage districts to allow subsequent generations of settlers to responsibly control and develop local resources. Only about a fifth of all western lands, he estimated, could be used for agricultural purposes. He believed that the Homestead Act's 160-acre land allotments were too small an area to encourage productive farming in the arid lands, and called for much larger land allotments, with guaranteed access to water supplies, to support grazing

animals. Farmers should be encouraged to cooperate, like the Mormons did in their own communities, setting up locally controlled organizations to develop and manage the region's scarce water resources. Powell understood, as few of his contemporaries did, the ecological connections linking entire watersheds. "In a group of mountains," he wrote:

a river has its source. A dozen or a score of creeks unite to form the trunk. The creeks higher up divide into brooks. All these streams combined form the drainage system of a hydrological basin. . . . Such a district of country is a commonwealth by itself. . . . Every man is interested in the conservation and management of the water supply, for all the waters are needed within the district. The men who control the farming below must also control the upper regions where the waters are gathered from the heavens and stored in the reservoirs. . . . Not a spring of a creek can be touched without affecting the interests of every man who cultivates the soil in the region. All the waters are common property until they reach the main canal, where they are to be distributed among the people. How these waters are to be caught and the common source of the wealth utilized by the individual settlers interested therein is a problem for the men of the district to solve, and for them alone.

Powell's ideas on conservation and environmental regulation were decades ahead of his time and came to little practical consequence.

THE U.S. GEOLOGICAL SURVEY

Powell would have greater influence elsewhere. The federally sponsored western sur-

veys of the late 1860s and early 1870s were a bureaucratic mess. Powell's survey at first reported only to the Smithsonian Institution, and later to the Interior Department; Frederick V. Hayden's fell under the supervision of the Department of the Interior; Clarence King and Lieutenant George Wheeler reported to the Secretary of War. The surveys competed for funds from Congress and for the services of geologists, and overlapped in their exploring jurisdictions. Largely at Powell's initiative, Congress acted in 1879 to bring all federal surveying efforts under a single administrative roof by creating the U.S. Geological Survey (USGS), a government agency that is part of the Department of the Interior. Clarence King was appointed as the first director of the USGS; in 1881 John Wesley Powell succeeded him as director.

Powell attracted some of the country's most talented geologists and geographers to work for the USGS, including Grove Karl Gilbert, whose study of the Henry Mountains in southeastern Utah became a classic work in geology, and Captain Clarence Edward Dutton, whose published report, *The Geology of the High Plains of Utah*, was a similarly influential work in geology. While the men who became known as "Powell's Boys" did the fieldwork, Powell focused on lobbying and public relations. He had, of course, the great advantage of his status as both a war hero and an audacious explorer to bolster his credibility in appearances before Congress and the public. His writing ability was among his strongest assets. His series for *Scribner's* magazine on the 1869 trip was subsequently published by the Smithsonian Institution in an expanded version that included accounts of later trips on the Colorado as *The Exploration of the Colorado River of the West and its Tributaries*. Although



In this photograph taken by William Henry Jackson, three men stand in front of a U.S. Geological Survey log cabin in the Rocky Mountains. Jackson accompanied Ferdinand V. Hayden's survey as its official photographer between 1870 and 1878. (*Library of Congress, Prints and Photographs Division [LC-USZ62-63404 DLC]*)

historians have noted places in Powell's narrative where he confused or embellished events, the book was hailed in its own time as a great adventure story, and remains a classic in American exploration literature, second only to the journals of Lewis and Clark in lasting popularity.

A LIFE'S WORK COMPLETED

Powell was an effective administrator, but his ideas on land use regulation won him powerful enemies among western congressmen and their wealthy constituents, including mine owners and big ranchers. In the 1890s

Congress began cutting the USGS budget, a clear signal that Powell had fallen into official disfavor. In 1894, in poor health, he stepped down as USGS director, although he continued to carry out official duties as director of the Bureau of Ethnology for the rest of his life.

Among other contributions in his later years, Powell served as president of the American Association for the Advancement of Science and helped found the National Geographic Society. He died at his summer home in Haven, Maine, on September 23, 1902. Major Powell was buried with full military honors in Arlington National Cemetery. All told, in his lifetime he made 30 trips



In a photograph taken by William Henry Jackson, a U.S. Geological Survey pack train rides along the banks of the Yellowstone River. (*Library of Congress, Prints and Photographs Division [LC-USZ62-20198 DLC]*)

exploring the western United States. At the time of his death, he and his companions from 1869 remained the only people known to

have traveled the length of the Colorado River from Green River station to the mouth of the Grand Canyon.

THE EXPLORATION OF ALASKA



Alaska is the largest state in the United States, its territory containing nearly 600,000 square miles, equal in size to about one-fifth of the rest of the United States. It has more than 6,600 miles of coastline, longer than the combined length of the eastern and western seaboard of the lower United States, bounded on the north by the Arctic Ocean, to the west by the Bering Sea, and to the south by the Pacific Ocean. Alaska contains more than 20,000 miles of inland waters, more than any other state. It is home to the United States's highest mountain, 20,320-foot Mount Denali (formerly Mount McKinley), not to mention the next 15 highest summits.

A third of Alaska lies above the Arctic Circle, and most of the rest of the state is subarctic in climate; temperatures can drop as low as 70 degrees below zero in the long Alaska winters. Added to the difficulties of terrain and climate are the presence in warmer seasons in the backcountry of swarms of exceptionally ferocious mosquitoes. All in all, Alaska has offered substantial challenges to those who would explore it, earning the designation of North America's "last frontier."

EARLY ALASKAN EXPLORATION AND SETTLEMENT

North America's last frontier, paradoxically, was the first to know human visitors. Some 15,000 to 18,000 years ago, native people indigenous to Asia crossed a land bridge that temporarily linked that continent with the Americas. About 11,000 years ago, at the end of the last ice age, melting glacier waters raised the level of the sea enough to sever this link. Land migration ended, although other migrants from Siberia are thought to have arrived in North America by small boats, perhaps 8,000 years ago.

At the beginning of the 18th century, there were roughly 50,000 of these Asian migrants living in the region. Eskimo, who prefer to be known as Inuit, lived on the coast of the Alaska mainland and some of the coastal islands. Aleut lived on the Alaskan Peninsula, and the rugged Aleutians, a chain of islands that stretch westward some 1,200 miles toward Siberia. Indians lived in the northeast and interior regions. These Alaskan peoples



Inuit have traditionally inhabited the area stretching from Alaska across northern Canada to Greenland. This engraving depicts an Inuit family in Greenland. (National Library of Canada)

spoke different languages and worshiped different gods. Depending on habitat, some lived primarily on salmon, others on caribou, still others on whale, seal, or sea lion meat.

THE ORIGINS OF RUSSIAN AMERICA

At the end of the 16th century, Russian settlers were moving eastward on their country's frontier, the vast forest and tundra regions of Siberia. The Cossacks, a people who served the Russian czars as warriors, were in the vanguard of frontier exploration. By the 1630s Cossack fur hunters called *promyshlenniks*, had established an outpost on the Pacific Ocean at Okhotsk, the first European settle-

ment on the western shore of the Pacific, and the first European settlement anywhere on the Pacific north of Mexico. From the native Yupik people who lived on Siberia's coast, the new arrivals from Russia heard rumors of a "great land" lying even farther to the east; the Yupik word for it sounded to the Russians like "A-la-a-ska."

Genoan explorer Christopher Columbus had sailed west to discover the New World; his Russian counterparts would sail east. In 1725 Czar Peter the Great of Russia ordered a 44-year-old Danish-born sailor named Vitus Bering to explore the seas off the coast of Siberia. Three years later, in a small boat called the *Sv. Gavril* (Saint Gabriel), Bering sailed into the waters separating Siberia's Chukotsk Peninsula from Alaska's Seward Peninsula. Later, in honor of Bering, this would be named the Bering Strait. Bering turned back, however, before sighting the great land rumored to lie farther to the east.

In 1732 Russian navigator Ivan Fedorov and surveyor Mikhail Gvozdev set off in the *Sv. Gavril*, and, unlike Bering, actually reached the Alaskan coast, at present-day Cape Prince of Wales. Fedorov and Gvozdev called the new land *bolshaya zemlya*, or "big land." But they did not realize that they had reached America.

Nine years later, in 1741, Bering and Alexei Chirikov set out on the Great Northern or Second Kamchatka Expedition. They sailed in two boats, the *St. Peter*, under Bering's command, and the *St. Paul*, under Chirikov's. Bering's and Chirikov's ships were separated by a storm. Both independently came within sight of the Alaskan mainland. Unlike Fedorov and Gvozdev, Bering and Chirikov recognized that the land they had arrived at was part of the North American continent. Chirikov spied present-day Prince of Wales Island on July 15, 1741 but, having lost his longboats, he failed

to land. Bering sighted 18,008-foot-high Mount St. Elias on July 16, and landed a few days later on Cape St. Elias, on the Gulf of Alaska.

Bering had a premonition of disaster, even as his crew celebrated their discovery. “Now we think that we have found everything,” he told one of his men, “But . . . how far we are from home and what accidents may yet happen . . .?” Bering would never see Russia again. Short of provisions and desperate to make landfall on their return voyage, on November 5 he and his crew put in at an island now known as Bering Island, still 200 miles from their home port. There, Bering’s beached ship was washed offshore and wrecked by the pounding of winter waves. Bering perished of scurvy that December, and little more than half his crew survived to return home in a small boat they constructed from the wreckage of their ship. But they brought back some-

thing of great value with them—furs from the sea otters that lived on Bering Island.

The furs Bering’s crew brought to Siberia spurred further Russian exploration of the big land to the east. Between the mid-1740s and the mid-1760s, Russian fur traders worked their way steadily eastward, island by island through the Aleutian Islands until they reached the Alaskan mainland. The first permanent Russian outpost in North America was established by fur trader Grigorii Shelikhov at Three Saints Bay on the southwestern coast of Kodiak Island in 1784, with other outposts soon established at Yakuta Bay and at a location near present-day Sitka. Seven rival Russian fur companies competed in the region, until 1799 when Russian czar Paul I issued an imperial charter creating a trade monopoly in Alaska, modeled on the Hudson’s Bay Company and known as the Russian-American Company.



Georg Wilhelm Steller’s Voyage to Alaska

One of the men accompanying Bering to Alaska was a 33-year-old German-born physician and botanist named Georg Wilhelm Steller. Steller was professor of natural history at the Imperial Academy of Sciences in St. Petersburg, the Russian capital. On this voyage, he discovered and described for science many new plants and animals, including Steller’s jay, common throughout the American West, and the now-extinct Steller’s sea cow, a huge manatee. Steller was impressed by what he saw of the New World. “America,” he wrote:

is of a noticeably better character than the most extreme northeast part of Asia, although the land toward the sea, whether viewed close up or from afar, everywhere consists of amazingly high mountain ranges, most of whose peaks are covered with perpetual snow [and] densely overgrown with the most beautiful trees . . .

Steller played an invaluable role keeping the crew alive on their long winter on Bering’s Island, gathering and cooking plants that helped some of the men ward off the effects of scurvy. He, too, survived to return to Russia, along with his notebooks describing the wonders of Alaska.

Like its counterpart on Hudson Bay, the Russian-American Company was both a commercial enterprise and an agent of colonial power. The company's manager, Aleksandr Baranov, ruled Russian America with an iron hand, bloodily putting down Indian rebellions. But there were never more than a few hundred Russians administering this trading empire, from a chain of outposts running from Sitka to Kodiak. They might have been easily displaced had they faced a serious military challenge from Spain or England, both of which had sent their own explorers to the region in the course of the 18th century.

Fortunately for the Russians, their chief European rivals in the region were drawn into a prolonged conflict with Napoleonic France at the start of the 19th century (Napoleon would invade Russia in 1812, but that had little impact on the affairs of the Russian-American company in far-off Alaska.) The Russians dreamed of extending their own empire southward in these years; in 1812 Russian traders built Fort Ross, 90 miles north of San Francisco. But declining fur harvests and pressure from Spanish authorities put the Russians at Fort Ross in an untenable position, and in 1841 they sold the outpost to California settler John Sutter.



Russians established outposts in Alaska to sustain the fur trade they developed there. Sitka, one of these outposts, is the location of this Russian church. (*Library of Congress, Prints and Photographs Division* [LOT 11453-1, no. 496])



Back in Alaska, the Russians had made only scant progress in exploring the vast territories over which they claimed sovereignty. In the 1830s and 1840s Russian explorers such as Lavrenti Alekseev Zagoskin and Rufus Serebrennikov ventured up some of the rivers that emptied into the sea, including the Yukon (known to the Russians as the Kwikpak), Koyukuk, Innoko, Kuskokwim, and the Copper Rivers. Though they mapped these rivers some distance inland, they followed none of them to their headwaters (not even the mighty Yukon, navigable for almost its entire distance as proven later in the century), nor did they

attempt to explore the surrounding interior. Russian explorers traveling up the Kuskokwim River in the 1830s spotted a high, distant peak and noted it on their maps. But because the Russians were more interested in the coast than the interior, the mountain (later to be known first as McKinley and then as Denali) disappeared from their later maps of Alaska. As one Russian official reported gloomily and with slight exaggeration to his superiors in 1862: "The explorations that were undertaken at different times in the [Alaskan] colonies were exceedingly superficial and wholly confined to the coast; the interior, not only of

continent but also of Sitka Island, is today still unexplored.”

Although the Russians had found gold, coal, and oil deposits, and continued to take valuable fur harvests from the region, imperial authorities began to view Alaska as more trouble than it was worth. The British threat had reappeared. British explorers from the Hudson’s Bay Company were making inroads in northeastern Alaska and along the upper Yukon River. Russia went to war with Britain and France in the Crimea in 1853, and Russian authorities feared that the British might strike at their North American empire. If the Russians had to face another power from across the Bering Strait, they would rather have it be the Americans than the British.

SEWARD’S FOLLY

Russian-American relations were generally congenial in these years. Beginning in the

early 19th century, many Russian furs found their way to the Chinese market in U.S. merchant ships, a mutually profitable arrangement. Americans did not feel threatened by Russian imperial ambitions in North America, and Russians did not feel threatened by U.S. claims of a manifest destiny to expand to the Pacific. In 1824 the U.S. and Russian governments signed a treaty in which the Russians renounced any territorial ambitions in North America below 54°40’ latitude. Americans coveted the Oregon country, souring relations with Britain, and Texas and Alaska, souring relations first with Spain and later with Mexico. But even the most expansionist-minded Americans showed little interest in Alaska in the years leading up to the American Civil War. The territory fell into U.S. hands more as a result of Russian rather than U.S. initiative.

U.S. Secretary of State William H. Seward agreed in early spring 1867 to pay the Russian czar and the Russian-American Company a



The United States purchased Alaska from Russia for \$7.2 million in 1867. (National Archives, Still Picture Records NWCTB-217-REGPI14E48-1868[TD9759])



U.S. Secretary of State William H. Seward, shown in a photograph taken by Mathew Brady between 1860 and 1865, negotiated the purchase of Alaska with the Russian minister to the United States, Eduard E. Stoekl. (*National Archives, Still Picture Records NWDNS-111-B-4204*)

total of \$7.2 million for Alaska, a price that worked out to about 2 cents an acre. Although Congress approved the purchase, many Americans at the time thought it a waste of good money. They called this latest addition to U.S. territory “Seward’s Folly” and “Seward’s Ice-box,” and “The New National Refrigerator.” But Seward knew what he was doing. Alaska, he declared, would prove a “great fishery, forest and mineral storehouse.” Even if Alaska had never produced any salmon, timber, gold, or other wealth, its possession cemented U.S. strategic power in the North Pacific, providing an advance base for military and commercial expansion in Asia and a check on British ambitions in the region.

AMERICAN EXPLORATION BEGINS

Even before Seward’s Folly was officially part of U.S. territory, U.S. explorers were at work in Alaska. Among the first was Robert Kennicott, born in New Orleans in 1835 and raised in Illinois, where he became curator of the Northwestern University Museum of Natural History. In 1860–61 Kennicott led an expedition sponsored by the Chicago Academy of Sciences and the Smithsonian Institution, to explore the Canadian Arctic and Alaska. Kennicott’s party traveled through northwest Canada via the Mackenzie and Porcupine Rivers, and deep into the interior of Alaska along the Yukon River. He sent back some 40 crates of specimens and Indian artifacts to his sponsors, establishing a reputation as the leading authority on the natural history of the Canadian Northwest.

In 1865 Kennicott returned to the region, this time in the service of the Western Union Telegraph Company. The first transcontinental telegraph line had only recently been established, allowing instantaneous communication between the East Coast and West Coast. Now Western Union hoped to extend its communication network to link Europe and America. Attempts to lay down a transatlantic cable had failed, and Western Union hoped to run its telegraph lines through Canada to Alaska, across the Bering Strait, and then all the way across Siberia to connect with European lines. It was a bold scheme, and the company turned to Kennicott for help.

The Russian-American Telegraph Expedition, as it was called, included in its numbers a “Scientific Corps” of a half-dozen scientists interested in Alaska’s climate, plants, and animals. Theirs would be the first attempt at a systematic scientific investigation of the region. The scientists sent home many valuable

specimens to the Smithsonian Institution and would produce pathbreaking papers in years to come on Alaskan climate, geology, zoology, and botany. But the expedition was poorly organized and led, and made irrelevant when an Atlantic telegraph cable was finally laid in 1867. To make matters worse, Kennicott died along the Yukon River on May 13, 1866, felled by a heart attack while taking compass bearings.

His successor as head of the Scientific Corps, naturalist William Healey Dall, became the most important figure in Alaskan exploration for the remainder of the 19th century. A prolific writer, Dall left a vivid account of his introduction to the Yukon River in 1866 in his book *Alaska and Its Resources*:

There lay a stretch of forty miles of this great, broad, snow-covered river, with broken fragments of ice-cakes glowing in the ruddy light of the setting sun; the low opposite shore, three miles away, seemed a mere black streak on the horizon. A few islands covered with dark evergreens were in sight above. Below, a faint purple tinged the snowy crests of far-off mountains, whose height, though not extreme, seemed greater from the low banks near me and the clear sky beyond. This was the river I had read and dreamed of, which had seemed as if shrouded in mystery, in spite of the tales of those who had seen it. On its banks live thousands who know neither its outlet nor its source, who look to it for food and even for clothing, and, recognizing its magnificence, call themselves proudly *men of the Yukon*.

Born in Boston in 1845, Dall had been recruited at age 19 into the Scientific Corps by Kennicott. He stayed on even after Western Union lost interest in the telegraph project.

Alaska was now U.S. territory, and Dall found new sponsors for his expeditionary research among U.S. government agencies. Starting in 1870 he spent several years mapping the Alaskan coastline for the U.S. Coast Survey, including investigations of coastal mountains and glaciers. Like John Wesley Powell, Dall was fascinated by the native population as well as the landscape, and produced pioneering ethnographic studies of Aleut and the Inuit population. He sent many specimens back to U.S. museums, including large collections of mollusks. And he published extensively: In addition to the 1870 *Alaska and its Resources*, Dall would write a remarkable 400 scientific papers about his discoveries.

MILITARY EXPLORERS

In its first years as a U.S. territory, Alaska was governed by the military and U.S. Army explorers played a major role in extending knowledge of the Alaskan interior. In 1869 army captain Charles Raymond took a steamboat up the Yukon to the site of the Hudson's Bay Company trading post at Fort Yukon. The trading post had been founded in 1847 at the confluence of the Porcupine and Yukon Rivers. The Russians had shown little interest in its existence, but the Americans wanted to know if it lay in Canadian or U.S. territory. The Yukon, which bisects Alaska and is the fifth-longest river in North America, had been explored before. But Raymond was the first to do so by steamboat, and his journey resulted in a far more accurate map of the upper Yukon. Fort Yukon, it turned out, was in U.S. territory, and Captain Raymond ordered the Hudson's Bay Company men to pack up and head back to their own country.

The army recognized the importance of the Yukon River to Alaska's development. In 1883 Lieutenant Frederick Swatka was the

first explorer to sail the entire Yukon River from its Canadian headwaters (which he visited without permission of the Canadian authorities) to its mouth on the Bering Sea. A raft named the *Resolute*, which they had constructed at the river's edge, transported him and his men.

Military explorers also began to map other Alaskan rivers. The most accomplished explorer was army lieutenant Henry Tureman Allen. Unlike many other officers who preferred less remote postings, Allen welcomed his assignment to Alaska in 1884. "I am willing to forgo almost any benefit that I might

receive by going east," Allen wrote his fiancée the previous year, "for an attempt at exploration in Alaska." He got his wish in 1885. Accompanied by two soldiers and two prospectors, Allen conducted an extensive reconnaissance of the Copper, Tanana, and Koyukuk Rivers, blazing a trail of about 1,500 miles through unexplored wilderness in just five months. General Nelson A. Miles, commander of the U.S. Army's Northwest Department, said afterward that Allen's achievement that summer "exceeded all explorations on the American continent since Lewis and Clark . . ."

CIVILIAN EXPLORERS, SCIENTISTS, AND TOURISTS

Toward the end of the century, the U.S. Geological Survey would begin to play an important role in mapping the Alaskan interior. The Harvard-educated geologist Alfred Hulse Brooks became the best-known of the USGS men in Alaska. He was appointed head of the Alaska section of the Geological Survey in 1903; Alaska's Brooks Range, which contains the highest mountains lying above the Arctic Circle, was named for him.

In addition to the official explorers, many private individuals made their own contributions to filling in the blank spaces on the Alaskan map. Naturalist and travel writer John Muir made the first of many trips to Alaska in 1879. On a canoe trip around the Alexander Archipelago in the company of Presbyterian missionary S. Hall Young, Muir discovered Glacier Bay, which soon became a prime Alaskan tourist attraction. Muir found in Alaska the unspoiled wilderness that was becoming increasingly hard to find in the lower United States. He left rapturous



Henry Tureman Allen explored the Copper, Tanana, and Koyukuk Rivers in Alaska in 1885. This photograph shows Allen much later in life, after service to the United States during World War I. (Library of Congress, Prints and Photographs Division [LC-USZ62-131940])

descriptions of his discoveries, such as this 1888 account of a steamer trip up the Stikeen River. The river, he noted, flowed first in a westerly direction:

through grassy, undulating plains, darkened here and there with passages of forest; then, curving southward and receiving numerous tributaries from the north, it enters the Coast Range and sweeps across it to the sea through a canyon that is sculptured like Yosemite, and is more than a hundred miles long, one to three miles wide at the bottom, and from five to eight thousand feet deep, marvelously beautiful and inspiring from end to end. . . . Back of the walls, and thousands of feet above them, innumerable peaks and spires and domes of ice and snow tower grandly into the deep blue sky. . . . Wondrous, too are the changes dependent on the weather—avalanches from the heights, booming and resounding from cliff to cliff, and storm-winds from the arctic highlands sweeping the canyon like a flood, filling the air with ice-dust, and robbing rock, glacier and forest in spotless white.

Tourists were few and far between in those early days of Alaskan settlement, for Alaska offered them few amenities. When Muir arrived in 1879, he spent his first night on Alaskan soil sleeping on the floor of a carpentry shop: Fort Wrangel, where he disembarked from his ship, had no hotels. Generally, those who came to Alaska in the 19th century as visitors were, like Muir, used to a rugged outdoor existence. Among these visitors were a contingent of mountaineers, lured by the prospect of pitting their skills against summits higher than those of any to be found in the lower United States or, for that matter, in the European Alps. Mount St. Elias, the same 18,000-foot-high mountain that Bering had spotted

back in 1741, was the first major Alaskan summit to be attempted by alpinists. In 1886 the *New York Times* sponsored a mountaineering expedition to attempt its summit; when they failed, they proclaimed the mountain unclimbable. A U.S. Geological Survey party in the early 1890s had no better luck. The mountain was finally conquered in 1897 by Italian climbers in a party led by Prince Luigi Amedeo di Savoia, the duke of Abruzzi. (He would later go on to great distinction as a pioneering explorer and climber in the Himalayas in Asia.)

The most famous private expedition to Alaska in the 19th century was that of E. H. Harriman in 1899. Unlike other Alaskan visitors, Edward Henry Harriman had no intention of roughing it. Born in Hempstead, New York, in 1848, Harriman had amassed a fortune as a financier and railroad owner. His fortune at century's end was estimated at \$60 million, making him one of the wealthiest men in America. Told by his doctor to take a long vacation for his health, he chose a rather unusual one. He chartered a luxuriously appointed passenger ship, the *George W. Elder*, and set sail from Seattle, Washington, on May 31, 1899, bound for Alaska. More than 100 passengers and crew accompanied him on a two-month cruise exploring the northwestern coast. For Harriman it was primarily a hunting trip (he bagged a huge Kodiak bear on Kodiak Island but was disappointed as he had wanted to kill a polar bear), but he brought along a large contingent of scientists, artists, and writers, including such notable figures in Alaskan exploration as William Henry Dall and John Muir. The USGS geologist Grove Karl Gilbert and artist Frederick Dellenbaugh (a veteran of John Wesley Powell's 1871 Colorado expedition) were also among the party. Harriman's scientists gathered thousands of plant, animal, and mineral specimens as well as Inuit,



Although not many people went to Alaska in the late 19th century, thoughts of Alaska infused America's popular culture. This 1897 theater poster advertises *Heart of the Klondike*, about the Klondike gold rush. (Library of Congress, Prints and Photographs Division [LC-USZC4-8279])

Aleut, and Indian artifacts. They mapped glaciers, and discovered a new fjord. After the expedition was over, Harriman sponsored the writing and publication of a 13-volume report on their findings, *The Harriman Alaska Series*.

Since the explorers could return to the comforts offered by Harriman's passenger ship at the end of a long day's hike along coastal glaciers, they enjoyed a level of luxury that previous generations of explorers would never have dreamed possible. As John Muir noted in a letter to Harriman's children after

the trip: "On the *Elder* I found not only the fields I liked best to study, but a hotel, a club, and a home together with a floating university. I enjoyed the instruction and companionship of a lot of the best fellows imaginable." The Harriman Expedition helped transform the popular view in the United States that Alaska was a barren wasteland into a much more appealing vision of the region as one of unspoiled wilderness. In doing so, the expedition sowed the seeds for the subsequent growth of the Alaskan tourist industry.



Jack London and the Romance of Alaska

In one of the most famous dog stories ever written, Jack London's novel *The Call of the Wild*, a pampered house pet named Buck learns to fend for himself in the Alaskan wilderness at the time of the gold rush. Buck's story made his creator a wealthy man. It was a welcome change for Jack London, born into poverty in San Francisco in 1876. For many years he had supported himself by hard work for low wages. Then, in 1897, like thousands of other Californians, he headed off to the Klondike to try his luck as a gold prospector.

London did not find many golden nuggets in Alaska, but he did find a golden literary subject in wilderness survival. In 1898, at age 22, he sold his first short story, "To the Man on the Trail," a tale that drew on his experiences the previous year in Alaska. *The Call of the Wild* followed in 1903. Of the 51 books London would publish before his untimely death at age 40, the story of the dog Buck's wilderness transformation was undoubtedly his most popular. *The Call of the Wild* contributed to the romance of Alaska as the "last frontier," in which men could test themselves against the elements, and in doing so recover an authentic existence unavailable in more civilized settings. "There is an ecstasy that marks the summit of life, and beyond which life cannot rise," London wrote

near the end of his novel. "And such is the paradox of living, this ecstasy comes when one is most alive, and it comes as a complete forgetfulness that one is alive . . . [I]t came to Buck leading the pack, sounding the old wolf-cry, straining after the food that was alive and that fled swiftly before him during the moonlight."



Jack London based his novel *The Call of the Wild* on his experiences as one of the many who went to the Klondike in search of wealth. (Library of Congress, Prints and Photographs Division [LC-G4085-0411])

THE LAST DAYS OF THE LAST FRONTIER

The first Americans to come to Alaska, like the Russians, came for furs. Then they came for salmon. But growth among the non-native population was slow. There were fewer Alaskans of European descent in 1870 than in 1840. According to the 1880 census there were only 430 white Alaskans, compared to about 33,000 Alaska Natives.

Ten years later, in 1890, there were about 4,300 whites, and by the turn of the century there were more than 30,000 whites. Gold made the sudden difference. There were modest gold strikes in the 1870s and 1880s, attracting a few thousand prospectors. A major strike on Bonanza Creek in the Canadian Klondike in 1896 brought tens of thousands to the Canadian Yukon and Alaska. Seward's Folly was paying rich dividends.

Alaska continued to draw new settlers in the following century who were attracted by

the "call of the wild." Whether they found it is a good question. Of the 627,000 Alaskan residents counted in the 2000 census, more than 250,000 lived in Anchorage or its immediate vicinity, and another 80,000 in Fairbanks and neighboring communities. Four out of five Alaskans lived in the lower third of the state, in a band stretching from Ketchikan to Fairbanks. As a recent study by Stephen Haycox, professor of history at the University of Alaska in Anchorage, noted a little ruefully: "Most Alaskans drive ordinary cars on asphalt streets to platted subdivisions of framed houses with unruly grass and unruly children." Even the most remote Native villages in the northern and western Alaskan backcountry are linked by satellite television, telephones, and light air transportation to the larger communities along Alaska's southern coast. The call of the wild may still echo for some, but it echoes ever more faintly.

10

WILDERNESS PRESERVATION



By the end of the 19th century, the era of the American frontier was drawing to an end, as historian Frederick Jackson Turner noted in his 1893 essay “The Frontier in American History.” Thanks to Meriwether Lewis and William Clark, the mountain men, the Army Corps of Topographical Engineers, John Wesley Powell, and many others, no blank spaces on the map remained to be filled in. The Indian tribes, to whom all the western lands once belonged (to the extent that it could be said to belong to anyone) were penned up on reservations, their numbers dwindling, their future survival uncertain at best. Overgrazing of range lands, clearcutting of timberlands, and equally exploitative agricultural and mining practices were ruining millions of acres of former wilderness land. Hunting and the destruction of habitat were killing off native species of animals. There were virtually no more buffalo where once millions had ranged across the plains, and the numbers of grizzly bears, beavers, grey wolves, caribou, cutthroat trout, bighorn sheep, and prairie dogs were greatly reduced.

Railroads and telegraph lines (soon to be joined by electric and telephone lines, along

with automobile-bearing roads and highways) crisscrossed the plains and linked the coasts. The open range was fenced off with barbed wire, and Americans were moving west in ever-increasing numbers. Already at the turn of the 20th century California laid claim to one of the nation’s 10 largest cities, San Francisco (and by the beginning of the 21st century six of the nation’s 10 largest cities lay west of the Mississippi.) With each passing year, the wild West was becoming more and more like the tame East. It was then that Americans began to rediscover the virtues of wilderness.

TEDDY ROOSEVELT

Theodore (“Teddy”) Roosevelt, Jr., was born in 1858 into a life of wealth and ease in New York City. His father was a prominent merchant from a family that had long been part of the city’s elite. Theodore Roosevelt Sr. showered his children with privileges, including lengthy tours of Europe, and the best schooling money could buy. He also gave his children a sense of social obligation; he was a donor to many worthy causes, and a cofounder of New



By the end of the 19th century, Americans were settling in the West in ever greater numbers, establishing towns such as this one accessible by train and steamboat. (*Library of Congress, Prints and Photographs Division [LC-USZ62-485]*)

York City's American Museum of Natural History.

Teddy was a sickly child. Nicknamed “Teedie” as a boy, he was underweight and suffering from asthma and poor eyesight. But Teddy Roosevelt did not lack willpower, and he was determined to build up his health and stamina. He took up boxing and horseback riding, and exercised in the gym his father had constructed in the family mansion.

Young Teddy Roosevelt was also fascinated by nature; the earliest letter of his that has been preserved, written at age 10, contains a complaint about a tree being cut down. He taught himself taxidermy and began a collection of stuffed birds and animals while still a

child, which he later donated to the American Museum of Natural History and the Smithsonian Institution. At Harvard University he excelled as a student of both American and natural history. Upon graduation, someone of his background and interests might have gone on to a life as either a college professor or a businessman, like his father. Instead, he entered the rough and tumble world of New York state politics, winning election as a Republican representative to the New York State Assembly in 1881, at age 23, and winning a reputation as a reformer.

ROOSEVELT WAS AN ADOPTED WESTERNER

In 1883 Roosevelt made his first trip to the Dakota badlands. In part, his trip was prompted by his long-standing interest in the outdoors. But there may have been other motives at work as well. He had been ridiculed by a New York newspaper as unmanly (his voice tended to squeak in moments of excitement); the newspaper called him “chief of the dudes.”

A “dude,” in western slang, referred to someone coming from the East who had more money than common sense or physical prowess. Being chief of the dudes was not a compliment. (In 1884 the first “dude ranch” opened in Wyoming. Soon there would be hundreds, in Wyoming, Montana, and the Dakotas, offering elements of a rugged outdoor life, including horseback riding and sleeping in a tent, with plenty of luxuries for the well-heeled tourists who came as clients.)

Determined to prove that he was not just another “dude,” Teddy Roosevelt bought a ranch and a herd of cattle in North Dakota in 1883. He spent whole days on horseback, taking part in cattle roundups, hunting buffalo, and even helping the local sheriff chase cattle thieves. He also posed for photographs that



President of the United States from 1901 until 1908, Theodore Roosevelt is known for his interest in nature. (*Library of Congress, Prints and Photographs Division [LC-USZ62-13026]*)

suggested the image he wanted to cultivate with the voters back east; in one he wore a fringed buckskin costume, looking like a dandified version of an early 19th-century mountain man, and in another he was dressed as a cowboy, complete with sombrero on his head and silver spurs on his boots (to complete the image, he took off his glasses for that photograph—though without them he could barely see). Since he spent most of the year in New York tending to political and other duties, Teddy Roosevelt was at best a part-time and decidedly amateur cowboy.

In 1884 Alice, his wife of four years, died. Saddened by this personal tragedy, Teddy Roosevelt headed back west to the Dakotas, where long hours in the saddle hardened him. “What a change!” one eastern newspaper wrote on his return. Roosevelt “is now brown as a berry and has increased 30 pounds in weight . . .” with a voice “heartily and strong enough to drive oxen.” Even as his career as an eastern politician took off (he served as police commissioner of New York City and was appointed assistant secretary of the navy in 1897), he added to his reputation as a man of the West with books like *Hunting Trips of a Ranchman*, published in 1888, and *The Wilderness Hunter*, published in 1893. Not since John C. Frémont’s era had a prominent political figure so successfully played on the U.S. attachment to frontier ideals. To hear Teddy Roosevelt tell it, he was a frontiersman first, and a politician only in his spare time. “[T]here are few sensations,” he once wrote, that “I prefer to that of galloping over these rolling, limitless prairies, rifle in hand.”

ROOSEVELT AND THE “STRENUOUS LIFE”

Teddy Roosevelt proved the perfect politician for a nation that, at the end of its frontier era,

was looking abroad to new frontiers. When war with Spain broke out in 1898, Roosevelt raised a regiment of volunteers, the famous “Rough Riders,” and led them in battle at San Juan Hill in Cuba. He returned to the United States after the Spanish-American War as a national hero, was elected governor of New York in 1898, and elected vice president of the United States in 1900. By now he was seen as the embodiment of western manliness, a rough-riding cowboy who knew how to get things done in Washington, as well as out on the range.

In 1899 he had delivered a speech in Chicago that he entitled “The Strenuous Life.” It would be his most famous speech, and summed up the philosophy by which he lived his own life, and hoped his countrymen would live theirs:

In speaking to you, men of the greatest city of the West, men of the State which gave to the country Lincoln and Grant, men who preeminently and distinctly embody all that is most American in the American character, I wish to preach, not the doctrine of ignoble ease, but the doctrine of the strenuous life, the life of toil and effort, of labor and strife, to preach that highest form of success which comes, not to the man who desires mere easy peace, but to the man who does not shrink from danger, from hardship, or from bitter toil, and who out of these wins the splendid ultimate triumph.

For Roosevelt the strenuous life was tied to a life lived outdoors. In 1887 he cofounded the Boone and Crockett Club, an association of wealthy hunters who also took an interest in conservation issues. Teddy Roosevelt loved to kill big animals like buffalo (he had danced a “war dance” around the first one he killed in 1883); but he also knew that the numbers of



Commanded by Theodore Roosevelt, the Rough Riders fought in the Battle of San Juan Hill during the Spanish-American War. (*National Archives/DOD, War & Conflict, #299*)



buffalo and other game animals were dwindling, and they would disappear entirely unless some action was taken to protect them.

High political office did not interfere with his devotion to hearty outdoor activities. He was on a mountain hike on Mount Marcy, the highest summit in New York's Adirondack Mountains, when he learned of the death of President William McKinley by an assassin's bullet and his own elevation to the White House. He was now in a position to provide other Americans with the opportunity to pursue the "strenuous life." One of the ways he would do so was by devoting himself to the conservation of America's remaining wilderness areas.

JOHN MUIR

John Muir was another adopted son of the West. Born in Scotland in 1838, he moved with his family to Wisconsin in 1849, and then at age 30, he moved on by himself to California. Even more than Teddy Roosevelt, he was drawn to the wilderness. He moved to a cabin in Yosemite Valley and supported himself with a variety of jobs, from sheepherder to sawmill operator. But in every spare moment, he explored the Sierra Nevada. Recalling his first view of the mountain range, he would later write "It seemed to me the Sierra should be called . . . the Range of Light . . . the most divinely beautiful of all the mountain chains I have ever seen."

Muir became an expert on the geology, geography, and ecology of the Sierra Nevada. He also traveled elsewhere in pursuit of unspoiled wilderness vistas, including many trips to Alaska. He made a reputation for himself as a travel writer and, increasingly, as a philosopher of a wilderness ethic, celebrating wilderness for its own sake.



In this 1906 photograph, Theodore Roosevelt, left, and John Muir stand on Glacier Point overlooking California's Yosemite Valley. (*Library of Congress, Prints and Photographs Division [LC-USZ62-107389 DLC]*)

Like another wilderness enthusiast, John Wesley Powell, Muir grasped the interconnectedness of the natural world. As he would write of the Yosemite Valley, “the branching canyons and valleys of the basin of the streams that pour into Yosemite are as closely related as are the finger to the palm of the hand—as to branches, foliage, of a tree to the trunk.” In Muir’s view, human beings needed to recognize that they, too, were part of an

interconnected natural system created by God. Natural wonders like Yosemite were, to Muir, places of deep spiritual meaning, and should be treated accordingly by their human visitors. In 1897 Muir wrote an article for the *Atlantic Monthly* magazine, arguing for a vastly expanded system of national parks to preserve America’s remaining wilderness areas:

Any fool can destroy trees. They cannot run away; and if they could they would still be destroyed—chased and hunted down as long as fun or a dollar could be got out of their bark hides, branching horns, or magnificent bole backbones. Few that fell trees plant them; nor would planting avail much towards getting back anything like the noble primeval forests. During a man’s life only saplings can be grown, in the place of the old trees—tens of centuries old—that have been destroyed. It took more than three thousand years to make some of the trees in these Western woods—trees that are still standing in perfect strength and beauty, waving and singing in the mighty forests of the Sierra. Through all the wonderful, eventful centuries since Christ’s time—and long before that—God has cared for these trees, saved them from drought, disease, avalanches, and a thousand straining, leveling tempests and floods; but he cannot save them from fools—only Uncle Sam can do that.

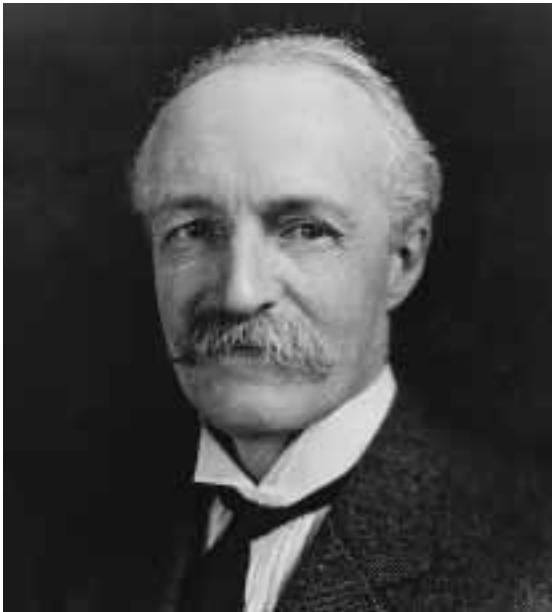
GIFFORD PINCHOT

For a while Muir and his fellow conservationists felt that they had found an ally in America’s first scientifically trained forester, Gifford Pinchot. Pinchot, like Teddy Roosevelt, came from a wealthy background, and like Teddy Roosevelt had defied his family’s expectations by pursuing a totally unexpected career. After



John Muir and the Sierra Club

In 1892, proclaiming his goal “to do something for wilderness and make the mountains glad,” John Muir helped found a conservationist organization called the Sierra Club. Muir served as the group’s leading figure and president until his death in 1914. The Sierra Club was founded as an advocacy group devoted, as its founding charter proclaimed, “to enlist the support and cooperation of the people and the government in preserving the forests and other natural features of the Sierra Nevada.” It was also an outing club, organizing camping trips to the Sierra Nevada. Over the years, the Sierra Club grew into an organization with a nationwide agenda of preservation and a nationwide membership that expanded from the 27 original members of 1892 to more than 450,000 members at the start of the 21st century. Other prominent conservationist organizations include the National Audubon Society, founded in 1905, the Wilderness Society, founded in 1935, and the Nature Conservancy, founded in 1951.



As head of the federal forestry division, Gifford Pinchot advocated “multiple use” of America’s forests, an understanding of conservation that differed greatly from that of John Muir and the Sierra Club, who defined conservation as preservation and strict protection. (*Library of Congress, Prints and Photographs Division [LC-USZ62-3906 DLC]*)

graduating from Yale, Pinchot went to France to study at the French Forest School in Nancy. There he became a believer in the principles of “scientific management” of forests. As Muir had noted in his 1897 *Atlantic Monthly* article, trees took a long time to grow. In the 19th century, timber companies had treated forests as though they were fields of grain, to be harvested as quickly and completely as possible. The result of these clear-cutting practices was often environmentally destructive: bare hillsides, erosion, and flooding. Not only that, but it would be several generations before new trees grew up for harvesting. The timber companies had to move on to despoil still more wilderness as a result. Pinchot argued for government regulations of timber-cutting that would lead to “sustained yield”—forests should be selectively pruned rather than cut down to the ground, policies that would be good to the environment, and good for the long-term interests of the timber industry.

Muir had known Pinchot since 1893. The two men liked each other and went camping

together. Pinchot seemed a knowledgeable ally in helping the Sierra Club and other conservation-minded Americans curb the wasteful practices of the timber companies. In 1898 Pinchot became chief of the Federal Forestry Division (reorganized in 1905 as the U.S. Forest Service, a bureau of the Department of Agriculture). Teddy Roosevelt was another of Pinchot's friends, and upon becoming president was determined to adopt as federal policy Pinchot's ideas of scientific management and sustained yield.

But by that time Muir no longer considered Pinchot a reliable ally in the fight for preserving wilderness. Pinchot's determination to permit "multiple use" of America's forest preserves—including leasing public lands to timber companies for logging, mining, and grazing operations—amounted to "multiple abuse" in the eyes of wilderness preservationists. Muir and Pinchot found themselves on opposite sides in a number of controversies, including the decision to dam the river in Hetch Hetchy Valley, part of the Yosemite parkland, to create a reservoir for San Francisco's use. The damming of Hetch Hetchy was a bitter defeat for the Sierra Club, and for John Muir personally.

ROOSEVELT'S RECORD AS CONSERVATIONIST

Notwithstanding his criticism of U.S. Forest Service director Gifford Pinchot, Muir continued to regard Pinchot's boss, Teddy Roosevelt, as a friend of conservation. Roosevelt was not as strict a wilderness preservationist as Muir would have preferred, but neither was he sympathetic to those who had plundered the nation's public land resources in the 19th century. "Shortsighted men," Roosevelt once declared, "in their greed and selfishness will, if permitted, rob our country of half its charm



As president, Theodore Roosevelt (left) believed and incorporated the ideas of Gifford Pinchot (right) about natural resources into federal policy. (*Library of Congress, Prints and Photographs Division [LC-USZ62-55630 DLC]*)

by their reckless extermination of all useful and beautiful wild things."

When Roosevelt stepped into the White House, Muir wrote to him with advice on conservation policy. Roosevelt, who believed that the president should wield his power as steward of the people, often acted on Muir's advice, as well as his own conservationist instincts. In 1891 Congress had revised the nation's public land regulations, allowing the president to designate forest reserve areas. This power went virtually unnoticed until Teddy Roosevelt

became president. Within a few years he had set aside 235 million acres of land as forest reserves, administered by the Forest Service. In his seven years in office, Roosevelt created five new national parks. The Antiquities Act of 1906 allowed the creation of a new category of protected federal land, known as national monuments. Congress had intended these monuments to consist of historical sites, such as the remains of Indian villages in the South-

west. Roosevelt broadened the application of the act to include scenic wonders. At John Muir's urging, 800,000 acres along the Colorado River in Arizona were designated the Grand Canyon National Monument by Roosevelt in 1908 (in 1920 the Grand Canyon became a national park). All told, Roosevelt created 16 national monuments. He also authorized the creation of 51 national wildlife refuges, another innovation of his presidency.



Creating the American National Park System

In 1872 President Ulysses S. Grant signed the law designating Yellowstone as the nation's first national park. Four more such parks were created by Congress in the 1890s, including Yosemite, Sequoia, and Kings Canyon National Parks, in California, and Mount Rainier National Park, in Washington. President Teddy Roosevelt and some of his successors greatly expanded the system in the years that followed.

By 1916, when the National Park Service was created as a bureau of the Department of the Interior, there were 16 national parks and 21 national monuments in existence, a total of nearly 7,500 square miles. Today there are more than 300 separate national parks, national monuments, national military parks, national historical parks, national seashores, and other forms of federally controlled parkland, totaling 125,000 square miles. National parkland can be found in 49 of the 50 states, as well as in the District of Columbia, Puerto Rico, and other territories. National Park Rangers administer, patrol, and provide other services at these sites, which receive nearly 300 million visitors annually.

Many of these park sites have direct connections with the history of the exploration of the western United States, including Yellowstone National Park in Wyoming, Grand Canyon National Park in Arizona, Rocky Mountain National Park in Colorado, Wrangel-St. Elias National Park in Alaska, Bent's Old Fort National Historic Site in Colorado, Fort Union Trading Post National Historic Site in Montana, Jefferson National Expansion Memorial in St. Louis, Fort Clatsop National Memorial in Oregon, the Missouri National Recreational River, and the Denali National Preserve in Alaska.

In addition to national park sites, the U.S. Forest Service manages 191 million acres of public land in 155 national forests and 20 national grasslands; the Fish and Wildlife Service manages about 95 million acres, including 542 national wildlife refuges; and the Bureau of Land Management (BLM) administers another 260 million acres.

Teddy Roosevelt and John Muir finally met in 1903, when Roosevelt came west on a vacation that took him first to Yellowstone and then to Yosemite National Park. Muir took Roosevelt on a three-day guided tour of the

Yosemite Valley, accompanied only by their pack mules and a cook. The first night they slept under the stars in a grove of giant sequoias: “It was clear weather, and we lay in the open,” Roosevelt would later recall in a



Bordering the Colorado River in northwestern Arizona, Grand Canyon National Park was first designated a national monument and later became a park. (*National Park Service*)

passage that sounded a lot like something John Muir could have written, “the enormous cinnamon colored trunks rising above us like the columns of a vaster and more beautiful cathedral than was ever conceived by an



human architect.” On their second night out, they camped at Glacier Point on the southern rim of the valley. They cooked beefsteaks over an open fire, a meal that the president pronounced “bully,” his favorite word of praise. The next morning they awoke to find that four inches of snow had fallen on them during the night which the president found to be even “bullier yet!” Muir was impressed to find that Roosevelt knew so much natural history, and could identify birds such as the western hermit thrush by their song. He chided the president, however, for the delight he took in hunting wild animals. “When are you going to get beyond the boyishness of killing things?” Muir asked bluntly. The president was not offended (nor did he have any intention of giving up hunting).

MUIR AND ROOSEVELT’S LEGACY

All in all, Teddy Roosevelt had a great time on the trip and was always grateful to Muir. In 1908 he would designate Muir Woods, a northern California redwood forest, as a national monument. The year after Muir’s death in 1914, Roosevelt wrote an obituary for his camping companion in which he described Muir as “a great factor in influencing the thought of California and the thought of the entire country so as to secure the preservation of those great natural phenomena—wonderful canyons, giant trees, slopes of flower-spangled hillsides—which make California a veritable Garden of the Lord.” He concluded: “Our generation owes much to John Muir.”

Muir and Roosevelt both valued wilderness. For Muir, wilderness deserved preserving in its own right, as a sacred trust. For Roosevelt, wilderness was worth preserving as an incubator for the values of the “strenuous life.” Muir was an idealist and uncompromising



Yellowstone National Park was the first area to be designated as such in 1872. John Muir worked throughout his life for the preservation of America's natural lands and the expansion of the national park system. *(National Park Service)*

preservationist; Roosevelt was a practical politician and sometimes compromised wilderness preservation in the name of competing interests. But for a few years at the dawn of

the 20th century the two men accomplished more on behalf of the remaining American wilderness than anyone who came before them.

EPILOGUE

THE AMBIGUOUS LEGACY OF NORTH AMERICAN EXPLORATION



The history of the exploration of the western North American continent reveals not a few instances where the explorers themselves wound up wondering afterward about the consequences of their own triumphs. Consider a letter that William Clark sent from St. Louis to former president Thomas Jefferson at his home in Virginia in December 1825, 20 years after Clark and Meriwether Lewis had reached the Pacific Ocean:

In my present Situation of Superintendent of Indian Affairs, it would afford me pleasure to be enabled to meliorate [improve] the condition of those unfortunate people placed under my charge, knowing as I do their wretchedness, and their rapid decline. It is to be lamented that this deplorable Situation of the Indians do not Receive more of the humain feelings of this Nation. . . . It would afford me much pleasure to have

your views on the subject, which would enable me to use the Small Means in my power to the foundation of more favourable results in their Condition.

Jefferson, who died six months later, on July 4, 1826, did not get around to responding to Clark's letter and, indeed, even if he had, there was little he could have done to better "this deplorable Situation of the Indians," which would only get worse as the century progressed.

The explorers who pioneered the way up the Missouri and the Saskatchewan and the Columbia Rivers, who scaled the Canadian Rockies and Wyoming's Wind River Range and California's Sierra Nevada, who crossed Nevada's Great Basin, who stumbled upon Utah's Great Salt Lake, and who looked up in wonder from the rapids of the Colorado River at the walls of Arizona's Grand Canyon, were the

advance guard of a mighty army of their fellow citizens, who came to acquire, to inhabit, to develop, and sometimes to ruin the wonders viewed by their predecessors.

It would not be fair to blame Meriwether Lewis and William Clark for the smallpox epidemic of 1837 that virtually wiped out the Mandan Indians—even though the steamboat that carried the infection followed their route up the Missouri. Nor would it be fair to blame John Wesley Powell for the construction of the Glen Canyon dam on the Colorado River in 1963, creating a reservoir that drowned some of the most spectacular river scenery in North

America—even though the dam's builders chose to name the reservoir Lake Powell.

Explorers do not control their discoveries. Clark was deeply troubled by the fate of the western Indians, even before the smallpox epidemic; it seems safe to say that Powell would have been equally dismayed by the fate of the wild Colorado River he had explored in 1869 if he could have seen it a century later. The failings of later generations of Americans do not diminish the heroism and the achievements of those early explorers of the Great Unknown, who put their own lives at risk to fill in the blank spaces on the map.



In many cases the result of an area being explored and opened to settlers resulted in a decline in conditions for local Indians. In this 1891 photograph, 12 Miniconjou Lakota stand near their tipis on the Pine Ridge Reservation in South Dakota. Pine Ridge became—and continues to be—one of the poorest areas in the United States. (*Library of Congress, Prints and Photographs Division [LC-USZ62-22972]*)



Glen Canyon Dam was completed in 1963. Its construction created Lake Powell along the Colorado River. (*Bureau of Reclamation, Upper Colorado Regional Office*)

GLOSSARY



arid Dry, with little moisture.

barometer A scientific instrument for measuring atmospheric pressure.

botany The branch of biology that studies plant life.

cache A hiding place in the ground for provisions.

cartography The design and production of maps.

chronometer An especially accurate time-keeper used to determine longitude.

climate Weather conditions of a region.

commerce Trade and business; the interchange of goods.

conchology The branch of zoology that studies mollusks.

confluence A flowing together of two or more streams.

continental divide High ground dividing river systems that flow into different oceans.

dialect A branch of a common language.

diplomacy The conduct of negotiations and other relations between separate states or nations.

empire A collection of nations or peoples ruled by a single powerful central government.

epidemic A condition in which a single disease spreads rapidly among a large number of people.

estuary The part of the mouth of a river emptying into the ocean in which the river's flow is affected by the ocean's tides.

ethnography The scientific description and study of various human cultures and races.

geology The science that studies the Earth's surface and subsurface, and that seeks to understand the natural processes that have shaped both.

headwaters The origin of a stream or river.

interpreter Someone appointed to translate what is said in a foreign language.

keelboat A shallow freight boat used for river travel; widely used on the Mississippi and Missouri Rivers in the early 19th century.

latitude The angular distance north or south from the equator of a point on the Earth's surface, measured on the meridian of the point.

longitude The angular distance east or west on the Earth's surface, determined by the angle contained between the meridian of a particular place and the prime meridian, which runs through Greenwich, England.

meridian A great imaginary circle of the Earth that passes through the poles and any given point on the Earth's surface.

minié ball A conical bullet with a hollow base, used during the Civil War.

- missionary** A person sent to spread his or her religious faith to nonbelievers, often in another country.
- musket** A smooth-bored, muzzle-loaded firearm, the standard infantry weapon of the 18th and early 19th century.
- naturalist** A person engaged in the study of natural history, such as zoology and botany.
- navigation** The art or science of directing the course of a ship.
- paleontology** The study of forms of life existing in past geological periods, as represented by fossil remains.
- pelts** Animal skins with the fur still attached.
- pinnacle** The highest or culminating point.
- plateau** A raised landform with a level surface.
- portage** The act of carrying boats or goods from one navigable body of water to another, or the place where such things can be carried.
- primeval** Having to do with very early ages in the Earth's history.
- scurvy** A potentially fatal disease caused by diets lacking in fruits and vegetables, leading to vitamin C deficiency marked by bleeding gums.
- sovereignty** The supreme and independent authority of government to which others are subordinate.
- specimen** A typical animal, plant, mineral, or part taken in a scientific sample and considered to exemplify a whole mass or number.
- topography** The detailed description and analysis of the features of a relatively small area, district, or locality.
- tributary** A stream contributing its flow to a larger stream or body of water.
- watershed** A high point of land dividing two river drainage areas.
- zoology** The branch of the biological sciences that concerns the study of animals.

FURTHER INFORMATION



NONFICTION

- Adams, Alexander B. *John James Audubon: A Biography*. New York: G. P. Putnam's Sons, 1966.
- Allen, John Logan. *Passage through the Garden: Lewis and Clark and the Image of the American Northwest*. Urbana: University of Illinois Press, 1975.
- Allen, John Logan, ed. *North American Exploration*. 3 vols. Lincoln: University of Nebraska Press, 1997.
- Axtell, James. *Beyond 1492: Encounters in Colonial North America*. New York: Oxford University Press, 1992.
- Baldwin, Leland D. *The Keelboat Era on Western Waters*. Pittsburgh: University of Pittsburgh Press, 1941.
- Belyea, Barbara, ed. *Columbia Journals of David Thompson*. Montreal: McGill-Queen's University Press, 1994.
- Benson, Maxine. *From Pittsburgh to the Rocky Mountains: Major Stephen Long's Expedition, 1819–1820*. Golden, Colo.: Fulcrum, 1988.
- Berton, Pierre. *The Klondike Fever: The Life and Times of the Last Great Gold Rush*. New York: Alfred A. Knopf, 1958.
- Brodie, Fawn M. *Thomas Jefferson: An Intimate History*. New York: W. W. Norton, 1974.
- Brooks, George R., ed. *The Southwest Expedition of Jedediah S. Smith: His Personal Account of the Journey to California, 1826–1827*. Glendale, Calif.: The Arthur H. Clark Company, 1977.
- Campbell, Marjorie Wilkins. *The North West Company*. Toronto: Macmillan of Canada, 1957.
- Catlin, George. *Letters and Notes on the Manners, Customs, and Conditions of North American Indians*. New York: Wiley and Putnam, 1844. Reprint, New York: Dover, 1973.
- Chaffin, Tom. *Pathfinder: John Charles Frémont and the Course of American Empire*. New York: Hill and Wang, 2002.
- Chevigny, Hector. *Russian America: The Great Alaskan Venture, 1741–1867*. New York: Viking Press, 1965.
- Christman, Margaret C. S. *Adventurous Pursuits: Americans and the China Trade, 1784–1844*. Washington, D.C.: Smithsonian Institution Press, 1984.
- Cline, Gloria Griffen. *Peter Skene Ogden and the Hudson's Bay Company*. Norman: University of Oklahoma Press, 1974.
- Cook, Warren. *Flood Tide of Empire: Spain and the Pacific Northwest, 1543–1819*. New Haven: Yale University Press, 1973.
- Crackel, Theodore J. *Mr. Jefferson's Army: Political and Social Reform in the Military Establishment, 1801–1809*. New York: New York University Press, 1987.
- Crittenden, Hiram M. *The American Fur Trade of the Far West*. 2 vols. Palo Alto, Calif.: Stanford University Press, 1954.
- Debo, Angie. *A History of the Indians of the United States*. Norman: University of Oklahoma Press, 1984.

- DeVoto, Bernard. *Across the Wide Missouri*. Boston: Houghton Mifflin, 1947.
- . *The Course of Empire*. Boston: Houghton Mifflin, 1952.
- Dick, Everett. *Conquering the Great American Desert*. Lincoln: Nebraska State Historical Society, 1975.
- Dickason, Olive P. *Canada's First Nations: A History of Founding Peoples from Earliest Times*. Norman: University of Oklahoma Press, 1992.
- Dillon, Richard. *Siskiyou Trail: The Hudson's Bay Fur Company Route to California*. New York: McGraw-Hill, 1975.
- Dippie, Brian. *The Vanishing American: White Attitudes and U.S. Indian Policy*. Middletown, Conn.: Wesleyan University Press, 1982.
- Ewan, Joseph. *Rocky Mountain Naturalists*. Denver, Colo.: University of Denver Press, 1950.
- Fisher, Robin. *Contact and Conflict: Indian-European Relations in British Columbia, 1774–1890*. Vancouver: University of British Columbia Press, 1977.
- Foley, William E., and C. David Rice. *The First Chouteaus: River Barons of Early St. Louis*. Urbana: University of Illinois Press, 1983.
- Francis, Daniel. *Battle for the West: Fur Traders and the Birth of Western Canada*. Edmonton, Alberta: Hurtig Publishers, 1982.
- Fraser, Esther. *The Canadian Rockies: Early Travels and Explorations*. Edmonton, Alberta: M. G. Hurtig, 1969.
- Galbraith, John S. *The Hudson's Bay Company as an Imperial Factor, 1821–1869*. Berkeley: University of California Press, 1957.
- Gibson, James R. *Imperial Russia in Frontier America*. New York: Oxford University Press, 1976.
- Goetzmann, William H. *Army Exploration in the American West, 1803–1863*. New Haven, Conn.: Yale University Press, 1959.
- . *Exploration and Empire: The Explorer and the Scientist in the Winning of the American West*. New York: Alfred A. Knopf, 1966.
- . *New Lands, New Men: America and the Second Great Age of Discovery*. New York: Viking, 1986.
- Goetzmann, William H., et al. *Karl Bodmer's America*. Lincoln: University of Nebraska Press, 1984.
- Gough, Barry M. *Distant Dominion: Britain and the Northwest Coast of North America, 1579–1809*. Vancouver: University of British Columbia Press, 1980.
- . *The Royal Navy and the Northwest Coast of North America, 1810–1914*. Vancouver: University of British Columbia Press, 1971.
- Greene, John C. *American Science in the Age of Jefferson*. Ames: Iowa State University Press, 1984.
- Harris, Burton. *John Colter: His Years in the Rockies*. New York: Scribners, 1952.
- Haycox, Stephen. *Alaska: An American Colony*. Seattle: University of Washington Press, 2002.
- Hollon, W. Eugene. *The Great American Desert Then and Now*. New York: Oxford University Press, 1966.
- . *The Lost Pathfinder: Zebulon Montgomery Pike*. Norman: University of Oklahoma Press, 1949.
- Hopwood, Victor G., ed. *David Thompson Travels in Western North America, 1784–1812*. Toronto: Macmillan of Canada, 1971.
- Hughes, Robert. *American Visions: The Epic History of Art in America*. New York: Alfred A. Knopf, 1997.
- Innis, Harold A. *The Fur Trade in Canada*. Revised Edition. Toronto, Ont.: University of Toronto Press, 1970.
- Irving, Washington. *Astoria: Adventure in the Pacific Northwest*. London: KPI Limited, 1987.
- Jackson, Donald L. *Thomas Jefferson and the Stony Mountains: Exploring the West from Monticello*. Urbana: University of Illinois Press, 1981.
- Jackson, Donald L., and Mary Lee Spence, eds. *The Expeditions of John Charles Fremont*. 4 vols. Urbana: University of Illinois Press, 1970.
- Jackson, Donald L., ed. *The Journals of Zebulon Montgomery Pike, with Letters and Related Documents*. 2 vols. Norman: University of Oklahoma Press, 1966.
- Jones, Chris. *Climbing in North America*. Berkeley: University of California Press, 1976.

- Josephy, Alvin M., Jr. *500 Nations: An Illustrated History of North American Indians*. New York: Knopf, 1994.
- . *The Indian Heritage of America*. Boston: Houghton Mifflin Company, 1968.
- Karamanski, Theodore J. *Fur Trade and Exploration: Opening the Far Northwest, 1821–1852*. Norman: University of Oklahoma Press, 1983.
- Kushner, Howard I. *Conflict on the Northwest Coast: American-Russian Rivalry in the Pacific Northwest, 1790–1867*. Westport, Conn.: Greenwood Press, 1975.
- Lamb, W. Kaye, ed. *The Letters and Journals of Simon Fraser, 1806–1808*. Toronto, Ont.: Macmillan of Canada, 1960.
- Limerick, Patricia N. *Legacy of Conquest: The Unbroken Past of the American West*. New York: W. W. Norton and Company, 1988.
- Luecke, Fredrick C., et al., eds. *Mapping the North American Plains: Essays in the History of Cartography*. Norman: University of Oklahoma Press, 1987.
- MacFarlane, Robert. *Mountains of the Mind*. New York: Pantheon Books, 2003.
- Malone, Dumas. *Jefferson the President, First Term, 1801–1805*. Vol. IV of *Jefferson and His Time*. Boston: Little, Brown, 1970.
- McKelvey, Susan Delano. *Botanical Exploration of the Trans-Mississippi West, 1790–1850*. Jamaica Plain, Mass.: Arnold Arboretum, 1955.
- Merk, Frederick. *The Oregon Question: Essays in Anglo-American Diplomacy and Politics*. Cambridge, Mass.: Harvard University Press, 1967.
- Mirsky, Jeannette. *To the Arctic: The Story of Northern Exploration from the Earliest Times to the Present*. Chicago: University of Chicago Press, 1948.
- Mitchell, Lee Clark. *Witnesses to a Vanishing America: The Nineteenth-Century Response*. Princeton, N.J.: Princeton University Press, 1981.
- Moore, Terris. *Mount McKinley: The Pioneer Climbs*. Seattle, Wash.: The Mountaineers, 1981.
- Morgan, Dale L. *Jedediah Smith and the Opening of the West*. Indianapolis, Ind.: Bobbs-Merrill, 1947.
- Nevins, Allan. *Frémont: Pathmarker of the West*. New York: D. Appleton–Century Company, 1939.
- Oglesby, Richard. *Manuel Lisa and the Opening of the Missouri Fur Trade*. Norman: University of Oklahoma Press, 1963.
- Pethick, Derek. *First Approaches to the Northwest Coast*. Vancouver, B.C.: J. J. Douglas, 1976.
- Phillips, Paul C. *The Fur Trade*. 2 vols. Norman: University of Oklahoma Press, 1961.
- Poesche, Jessie, ed. *Titian Ramsay Peale, 1799–1885, and His Journals of the Wilkes Expedition*. Philadelphia: The American Philosophical Society, 1961.
- Point, Nicolas, S. J. *Wilderness Kingdom: Indian Life in the Rocky Mountains, 1840–1847*. New York: Holt, Rinehart and Winston, 1967.
- Rabbit, Mary C., et al. *The Colorado River Region and John Wesley Powell*. Washington, D.C.: U.S. Government Printing Office, 1969.
- Rich, E. E. *The Fur Trade and the Northwest to 1857*. Toronto, Ont.: McClelland and Stewart, 1967.
- . *History of the Hudson's Bay Company, 1670–1870*. London: Hudson's Bay Record Society, 1958.
- Richardson, Edgar P., Brooke Hindle, and Lillian B. Miller. *Charles Wilson Peale and His World*. New York: Harry N. Abrams, 1983.
- Ronda, James P. *Astoria and Empire*. Lincoln: University of Nebraska Press, 1990.
- Schwantee, Carlos, ed. *Encounters with a Distant Land: Exploration and the Great Northwest*. Moscow: University of Idaho Press, 1994.
- Schwartz, Seymour I. *The Mismapping of America*. Rochester, N.Y.: University of Rochester Press, 1993.
- Sellers, Charles Coleman. *Mr. Peale's Museum: Charles Wilson Peale and the First Popular Museum of Natural Science and Art*. New York: W. W. Norton and Company, 1980.
- Sherwood, Morgan. *Exploration of Alaska, 1865–1900*. New Haven, Conn.: Yale University Press, 1965.
- Silverberg, Robert. *Stormy Voyager: The Story of Charles Wilkes*. Philadelphia: Lippincott, 1968.
- Skelton, William B. *An American Profession of Arms: The Army Officer Corps, 1784–1861*. Lawrence: University Press of Kansas, 1992.

- Smith, Henry Nash. *Virgin Land: The American West as Symbol and Myth*. Cambridge, Mass.: Harvard University Press, 1950.
- Spry, Irene, ed. *The Papers of the Palliser Expedition 1857–1860*. Toronto, Ont.: Macmillan of Canada, 1963.
- Stewart, George R. *Names on the Land: A Historical Account of Place Naming in the United States*. Boston: Houghton Mifflin, 1967.
- Streshinsky, Shirley. *Audubon: Life and Art in the American Wilderness*. New York: Villard Books, 1993.
- Stuart, Reginald C. *United States Expansion and British North America, 1775–1871*. Charlotte: University of North Carolina Press, 1988.
- Stuart, Robert. *The Discovery of the Oregon Trail: Robert Stuart's Narratives of his Overland Trip Eastward from Astoria in 1812–1813*. New York: Charles Scribner's Sons, 1935.
- Thomas, Davis, and Karen Ronnefeldt, eds. *People of the First Man: The Paintings of Karl Bodmer*. New York: Dutton, 1976.
- Trenton, Patricia, and Peter H. Hassrick. *The Rocky Mountains: A Vision for Artists in the Nineteenth Century*. Norman: University of Oklahoma Press, 1983.
- Udall, Stewart L. *The Forgotten Founders: Rethinking the History of the Old West*. Washington, D.C.: Island Press, 2002.
- Utley, Robert M. *A Life Wild and Perilous: Mountain Men and the Paths to the Pacific*. New York: Henry Holt, 1997.
- Viola, Herman J. *Exploring the West*. Washington, D.C.: Smithsonian Press, 1987.
- Warkentin, John, ed. *The Western Interior of Canada: Record of Geographic Discovery, 1612–1917*. Toronto, Ont.: McClelland and Stewart, 1964.
- Webb, Walter Prescott. *The Great Plains*. Boston: Ginn and Company, 1931.
- Wild, Peter. *Pioneer Conservationists of Western America*. Missoula, Mont.: Mountain Press Publishing Company, 1979.
- Wilkins, Thurman. *John Muir: Apostle of Nature*. Norman: University of Oklahoma Press, 1995.
- Williams, Glyn. *Voyages of Delusion: The Quest for the Northwest Passage*. New Haven, Conn.: Yale University Press, 2002.
- Wilson, James. *The Earth Shall Weep: A History of Native America*. New York: Atlantic Monthly Press, 1999.
- Wood, Richard G. *Stephen Harriman Long, 1784–1864: Army Engineer, Explorer, Inventor*. Glendale, Calif.: Arthur H. Clark Co., 1966.
- Wright, Allen A. *Prelude to Bonanza: The Discovery and Exploration of the Yukon*. Sidney, B.C.: Gray's Publishing, Ltd., 1967.

ENCYCLOPEDIAS

- Lamar, Howard R., ed. *The New Encyclopedia of the American West*. New Haven: Yale University Press, 1998.
- Milner, Clyde A., et al., eds. *The Oxford History of the American West*. New York: Oxford University Press, 1994.
- Waldman, Carl, Alan Wexler, and Jon Cunningham. *Encyclopedia of Exploration*. New York: Facts On File, 2004.

FICTION

- Gregory, Kristiana. *Dear America: Across the Wide and Lonesome Prairie: The Oregon Trail Diary of Hattie Campbell, 1847*. New York: Scholastic, 2003.
- London, Jack. *The Call of the Wild*. Englewood Cliffs, N.J.: Prentice-Hall, 1990.
- McCarthy, Gary. *Yosemite*. Chicago: Pinnacle Books, 1995.
- McMurtry, Larry. *Sin Killer*. New York: Simon and Schuster, 2003.
- Myers, Laurie. *Lewis and Clark and Me: A Dog's Tale*. New York: Henry Holt and Company, 2002.

WEB SITES

- Annenberg/CPB Learner.org. "Gallery of Peale Paintings." Available online. URL: <http://www.learner.org/biographyofamerica/prog03/>

- feature/gallery_08.html. Downloaded on February 14, 2004.
- The furtrapper.com. "Indian Smallpox." Available online. URL: http://www.thefurtrapper.com/Indian_disease.htm. Downloaded on February 14, 2004.
- John Wesley Powell Memorial Museum. "Major John Wesley Powell." Available online. URL: <http://www.powellmuseum.org/MajorPowell.html>. Downloaded on July 10, 2003.
- Lest We Forget. "Beyond the Pale: African-Americans in the Fur Trade West." Available online. URL: <http://www.coax/net/people/lwf/fur-trade.htm>. Downloaded on October 15, 2003.
- National Library of Canada. "David Thompson: The Man Who Looks at Stars." Available online. URL: <http://www.nlc-bnc.ca/explorers/kids/h3-1604-e.html>. Downloaded on February 14, 2004.
- National Park Service. "American Visionaries: Thomas Moran." Available online. URL: <http://www.cr.nps.gov/museum/exhibits/moran>. Downloaded on February 14, 2004.
- Nebraskastudies.org. "Manuel Lisa." Available online. URL: http://www.nebraskastudies.org/0400/frameset_reset.html. Downloaded on February 14, 2004.
- Public Broadcasting System. "Harriman Expedition Retraced: A Century of Change." Available online. URL: <http://www.pbs.org/harriman/index.html>. Downloaded on February 15, 2004.
- . "Kit Carson (1809–1868)." Available online. URL: http://www.pbs.org/weta/thewest/people/a_c/carson.htm. Downloaded on February 14, 2004.
- Smithsonian Institution. "Campfire Stories with George Catlin." Available online. URL: <http://catlinclassroom.si.edu/cl.html>. Downloaded on February 14, 2004.
- U.S. Corps of Topographical Engineers. "U.S. Corps of Topographical Engineers." Available online. URL: <http://www.topogs.org/Homepage.htm>. Downloaded on February 14, 2004.
- U.S. Geological Survey. "The United States Geological Survey: 1879–1989." Available online. URL: <http://pubs.usgs.gov/circ/c1050/index.htm>. Downloaded on February 14, 2004.

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